

TOWN OF WINCHESTER,  
MASSACHUSETTS

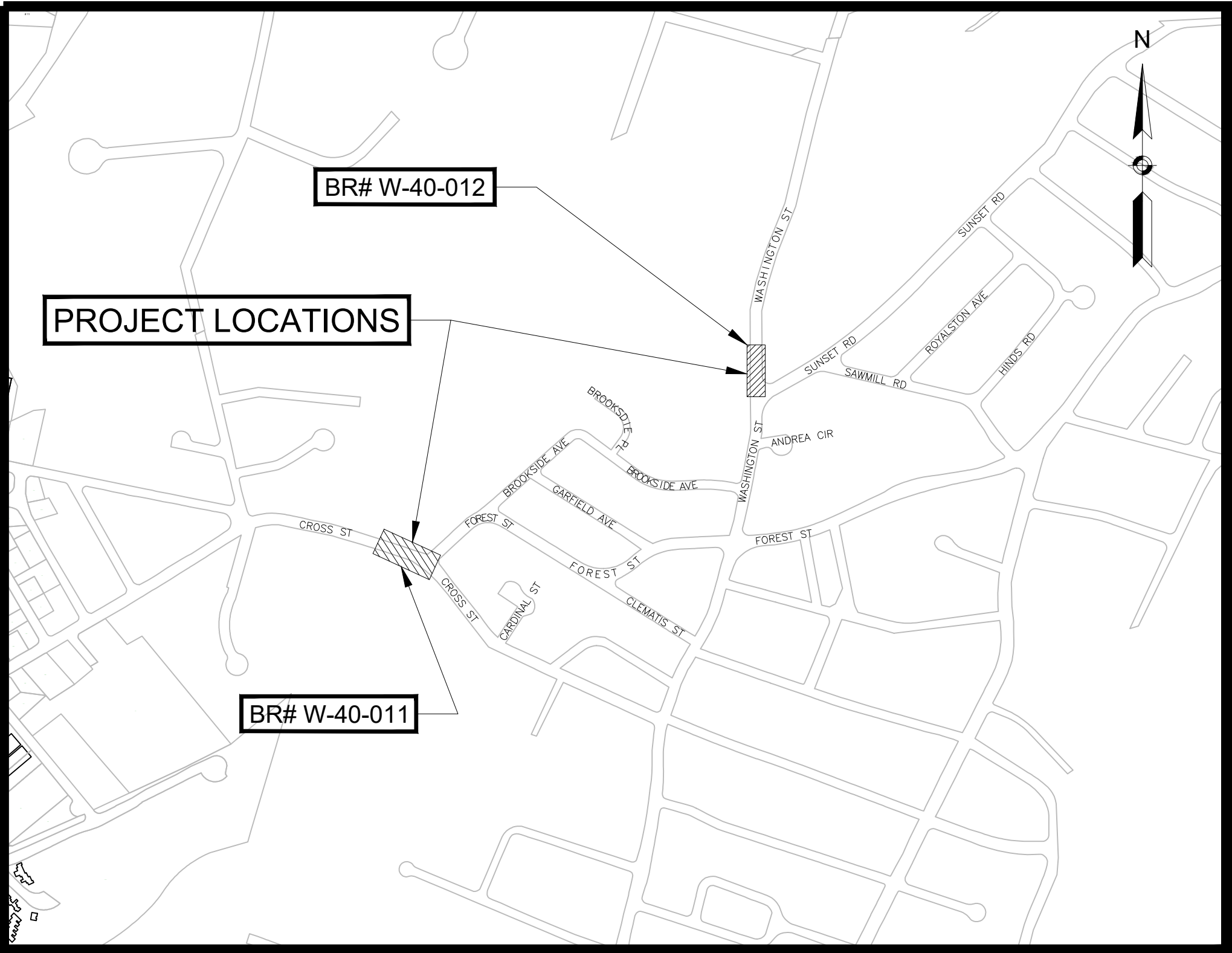
DEPARTMENT OF PUBLIC  
WORKS

PROPOSED BRIDGE REPAIRS OF

BRIDGE NO.: W-40-012 (2CH)  
WASHINGTON STREET OVER ABERJONA RIVER  
AND  
BRIDGE NO.: W-40-011 (80B)  
CROSS STREET OVER ABERJONA RIVER

JUNE 7, 2023

BID DOCUMENTS



LOCATION PLAN  
SCALE: 1"=500'

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GENERAL NOTES:

1. THE LOCATIONS OF THE EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES. THE CONTRACTOR SHALL DIG TEST PITS WITH THE LOCATIONS BEING APPROVED BY THE ENGINEER PRIOR TO COMMENCEMENT OF WORK TO EXACTLY LOCATE THE UTILITIES.
2. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
3. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY OWNER. ANY ALTERATIONS SHALL BE INCIDENTAL TO THE PROJECT. THE CONTRACTOR RESPONSIBLE FOR THE TEMPORARY SUPPORT OF ALL UTILITIES TO REMAIN IN PLACE AND SHALL DESCRIBE IN WRITING, TO THE SATISFACTION OF THE ENGINEER, HIS METHOD OF TEMPORARY SUPPORT.
4. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTRIBUTED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
5. THE TERM "PROPOSED (PROP)" INDICATES WORK TO BE CONSTRUCTED USING NEW MATERIALS OR, WHERE APPLICABLE, RE-USING EXISTING MATERIALS IDENTIFIED AS "REMOVE AND RESET (R&R)".
6. ALL EXISTING STATE, COUNTY AND TOWN LOCATION LINES AND PRIVATE PROPERTY LINES HAVE BEEN ESTABLISHED FROM AVAILABLE INFORMATION AND THEIR EXACT LOCATION ARE NOT GUARANTEED.
7. ALL EXCESS MATERIAL FROM ROADWAY RECONSTRUCTION OR THE EXCAVATION PROCESS SHALL BE REUSED ON SITE OR REMOVED FROM THE SITE AND DISPOSED OF IN A LEGAL AND PROPER MANNER.
8. THE CONTRACTOR SHALL CALL DIGSAFE AT 1-888-344-7233 AT LEAT 72 HOURS, SATURDAYS, AND HOLIDAYS EXCLUDED, PRIOR TO EXCAVATING AT ANY LOCATION. A COPY OF THE DIGSAFE PROJECT REFERENCE NUMBER(S) SHALL BE GIVEN TO THE TOWN PRIOR TO EXCAVATION.
9. MASSDOT WILL GENERALLY PROVIDE SURVEY WORK AS OUTLINED IN THE 1988 STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, SECTION 5.07. CONSTRUCTION STAKINGS, PAGE 18. THE CONTRACTOR SHOULD EMPLOY QUALIFIED PERSONNEL FOR ANY ADDITIONAL LAYOUT.
10. JOINTS BETWEEN HOT MIX ASPHALT TRENCH PAVEMENT AND SAWCUT EXISTING PAVEMENT SHALL BE SEALED WITH BITUMEN AND BACKSANDED.
11. IF DEEMED NECESSARY DUE TO THE WORK, THE CONTRACTOR SHALL COORDINATE WITH THE TOWN OF WINCHESTER WATER DEPARTMENT, THE WINCHESTER FIRE DEPARTMENT, AND THE ENGINEER FOR APPROVAL OF SHUTTING DOWN ANY EXISTING WATER MAINS AND SHALL ALSO OBTAIN APPROVAL FOR DISRUPTING ANY EXISTING SEWER FLOWS.
12. THE CONTRACTOR SHALL BE AWARE THAT ONLY TOWN PERSONNEL ARE ALLOWED TO OPERATE WATER GATES AND HYDRANTS. ANY REQUESTS TO OPERATE THE GATES SHALL BE COORDINATED THROUGH THE ENGINEER.
13. THE CONTRACTOR SHALL COORDINATE ANY WORK FOR THE PROJECT WITH ALL ADJACENT/CONCURRENT PROJECTS AND CONTRACTORS.
14. THE CONTRACTOR SHALL INSTALL PRIOR TO COMMENCEMENT OF WORK, MAINTAIN, AND REMOVE AT THE END OF THE PROJECT INLET SEDIMENT CONTROL BAGS IN ALL CATCH BASINS, WITHIN OR ADJACENT TO THE PROJECT LIMITS. THE CONTRACTOR SHALL ALSO MAINTAIN SILT FENCE AND COMPOST FILTER TUBES AS SHOWN ON THE PLANS THROUGHOUT THE DURATION OF THE PROJECT AND REMOVE AT THE END.
15. ANY GRASS AREAS DISTURBED BY THE WORK SHALL BE RESTORED TO EXISTING OR NEW GROUND COVER MATERIALS AS DIRECTED BY THE ENGINEER. ANY PLANTS, SHRUBS, OR FLOWERS DISTURBED BY THE WORK SHALL BE RESET TO EXISTING CONDITIONS OR REPLACED WITH NEW PLANTS, SHRUBS, OR FLOWERS AS DIRECTED BY THE ENGINEER. ALL WORK TO RESTORE LANDSCAPE AREAS, NEW GROUND COVER MATERIALS, NEW PLANTS, NEW SHRUBS, OR NEW FLOWERS REQUIRED BY THE ENGINEER SHALL BE INCIDENTAL TO THE PROJECT.
16. CONTRACTOR TO COORDINATE WITH UTILITY POLE OWNERS IN AREAS WHERE UNDERGROUND UTILITY WORK IS WITHIN CLOSE PROXIMITY AND POSSIBLE UTILITY POLE SHORING IS REQUIRED WHILE INSTALLING PROPOSED UTILITIES.
17. RAISE AND ADJUST FRAMES AND GRATES, FRAMES AND COVERS AND GATE BOXES PRIOR TO PAVEMENT OVERLAY, IF REQUIRED.
18. CONTRACTOR IS RESPONSIBLE FOR REPLACING ANY PROPERTY PINS THAT ARE DAMAGED OR DESTROYED DURING CONSTRUCTION, TO THEIR LOCATION JUST PRIOR TO CONSTRUCTION.

PAVEMENT MARKINGS SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		PAVEMENT ARROW - WHITE
		LEGEND "ONLY" - WHITE
		STOP LINE
		CROSSWALK
		SOLID WHITE LINE
		SOLID YELLOW LINE
		BROKEN WHITE LINE
		BROKEN YELLOW LINE
		DOTTED WHITE LINE
		DOTTED YELLOW LINE
		DOTTED WHITE LINE EXTENSION
		DOTTED YELLOW LINE EXTENSION
		DOUBLE WHITE LINE
		DOUBLE YELLOW LINE

GENERAL SYMBOLS

EXISTING	PROPOSED	DESCRIPTION
		JERSEY BARRIER
		CATCH BASIN
		CATCH BASIN CURB INLET
		FLAG POLE
		GAS PUMP
		MAIL BOX
		POST SQUARE
		POST CIRCULAR
		WELL
		ELECTRIC HANDHOLE
		FENCE GATE POST
		GAS GATE
		BORING HOLE
		MONITORING WELL
		TEST PIT
		HYDRANT
		LIGHT POLE
		COUNTY BOUND
		GPS POINT
		CABLE MANHOLE
		DRAINAGE MANHOLE
		ELECTRIC MANHOLE
		GAS MANHOLE
		MISC MANHOLE
		SEWER MANHOLE
		TELEPHONE MANHOLE
		WATER MANHOLE
		MASSACHUSETTS HIGHWAY BOUND
		MONUMENT
		STONE BOUND
		TOWN OR CITY BOUND
		TRAVERSE OR TRIANGULATION STATION
		TROLLEY POLE OR GUY POLE
		TRANSMISSION POLE
		UTILITY POLE W/ FIREBOX
		UTILITY POLE WITH DOUBLE LIGHT
		UTILITY POLE W / 1 LIGHT
		UTILITY POLE
		BUSH
		TREE
		STUMP
		SWAMP / MARSH
		WATER GATE
		PARKING METER
		OVERHEAD CABLE/WIRE
		CURBING
		CONTOURS (ON-THE-GROUND SURVEY DATA)
		CONTOURS (PHOTOGRAMMETRIC DATA)
		UNDERGROUND DRAIN PIPE (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND ELECTRIC DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND GAS MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND SEWER MAIN (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND TELEPHONE DUCT (DOUBLE LINE 24 INCH AND OVER)
		UNDERGROUND WATER MAIN (DOUBLE LINE 24 INCH AND OVER)
		BALANCED STONE WALL
		GUARD RAIL - STEEL POSTS
		GUARD RAIL - WOOD POSTS
		GUARD RAIL - DOUBLE FACE - STEEL POSTS
		GUARD RAIL - DOUBLE FACE - WOOD POSTS
		CHAIN LINK OR METAL FENCE
		WOOD FENCE
		HAY BALES/SILT FENCE
		TREE LINE
		SAWCUT LINE
		TOP OR BOTTOM OF SLOPE
		LIMIT OF EDGE OF PAVEMENT OR COLD PLANE AND OVERLAY
		BANK OF RIVER OR STREAM
		BORDER OF WETLAND
		100 FT WETLAND BUFFER
		200 FT RIVERFRONT BUFFER
		STATE HIGHWAY LAYOUT
		TOWN OR CITY LAYOUT
		COUNTY LAYOUT
		RAILROAD SIDELINE
		TOWN OR CITY BOUNDARY LINE
		PROPERTY LINE OR APPROXIMATE PROPERTY LINE
		EASEMENT

ABBREVIATIONS

GENERAL	
AADT	ANNUAL AVERAGE DAILY TRAFFIC
ABAN	ABANDON
ADJ	ADJUST
APPROX.	APPROXIMATE
A.C.	ASPHALT CONCRETE
ACCM PIPE	ASPHALT COATED CORRUGATED METAL PIPE
BIT.	BITUMINOUS
BC	BOTTOM OF CURB
BD.	BOUND
BL	BASELINE
BLDG	BUILDING
BM	BENCHMARK
BO	BY OTHERS
BOS	BOTTOM OF SLOPE
BR.	BRIDGE
CB	CATCH BASIN
CBCI	CATCH BASIN WITH CURB INLET
CC	CEMENT CONCRETE
CCM	CEMENT CONCRETE MASONRY
CEM	CEMENT
CI	CURB INLET
CIP	CAST IRON PIPE
C.I.P.	CAST IN PLACE
CLF	CHAIN LINK FENCE
CL	CENTERLINE
CMP	CORRUGATED METAL PIPE
CSP	CORRUGATED STEEL PIPE
CO.	COUNTY
CONC	CONCRETE
CONT	CONTINUOUS
CONST	CONSTRUCTION
CR GR	CROWN GRADE
DHV	DESIGN HOURLY VOLUME
DI	DROP INLET
DIA	DIAMETER
DIP	DUCTILE IRON PIPE
DW	STEADY DON'T WALK - PORTLAND ORANGE
DWY	DRIVEWAY
ELEV (or EL.)	ELEVATION
EMB	EMBANKMENT
EOP	EDGE OF PAVEMENT
EXIST (or EX)	EXISTING
EXC	EXCAVATION
F&C	FRAME AND COVER
F&G	FRAME AND GRATE
FDN.	FOUNDATION
FLDSTN	FIELDSTONE
GAR	GARAGE
GD	GROUND
GG	GAS GATE
GI	GUTTER INLET
GIP	GALVANIZED IRON PIPE
GRAN	GRANITE
GRAV	GRAVEL
GRD	GUARD
HDW	HEADWALL
HMA	HOT MIX ASPHALT
HOR	HORIZONTAL
HYD	HYDRANT
INV	INVERT
JCT	JUNCTION
L	LENGTH OF CURVE
LB	LEACH BASIN
LP	LIGHT POLE
LT	LEFT
MAX	MAXIMUM
MB	MAILBOX
MH	MANHOLE
MHB	MASSACHUSETTS HIGHWAY BOUND
MIN	MINIMUM
NIC	NOT IN CONTRACT
NO.	NUMBER
PC	POINT OF CURVATURE
PCC	POINT OF COMPOUND CURVATURE
P.G.L.	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
POC	POINT ON CURVE
POT	POINT ON TANGENT
PRC	POINT OF REVERSE CURVATURE
PROJ	PROJECT
PROP	PROPOSED
PSB	PLANTABLE SOIL BORROW
PT	POINT OF TANGENCY
PVC	POINT OF VERTICAL CURVATURE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENCY
PVMT	PAVEMENT
PWW	PAVED WATER WAY

ABBREVIATIONS (cont.)

GENERAL	
R	RADIUS OF CURVATURE
R&D	REMOVE AND DISPOSE
RCP	REINFORCED CONCRETE PIPE
RD	ROAD
RDWY	ROADWAY
REM	REMOVE
RET	RETAIN
RET WALL	RETAINING WALL
ROW	RIGHT OF WAY
RR	RAILROAD
R&R	REMOVE AND RESET
R&S	REMOVE AND STACK
RT	RIGHT
SB	STONE BOUND
SHLD	SHOULDER
SMH	SEWER MANHOLE
ST	STREET
STA	STATION
SSD	STOPPING SIGHT DISTANCE
SHLO	STATE HIGHWAY LAYOUT LINE
SW	SIDEWALK
T	TANGENT DISTANCE OF CURVE/TRUCK %
TAN	TANGENT
TEMP	TEMPORARY
TC	TOP OF CURB
TOS	TOP OF SLOPE
TYP	TYPICAL
UP	UTILITY POLE
VAR	VARIES
VERT	VERTICAL
VC	VERTICAL CURVE
WCR	WHEEL CHAIR RAMP
WG	WATER GATE
WIP	WROUGHT IRON PIPE
WM	WATER METER/WATER MAIN
X-SECT	CROSS SECTION

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BRIDGE REPAIRS

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GENERAL NOTES,  
LEGEND &  
ABBREVIATIONS

Sheet Number:

C-1

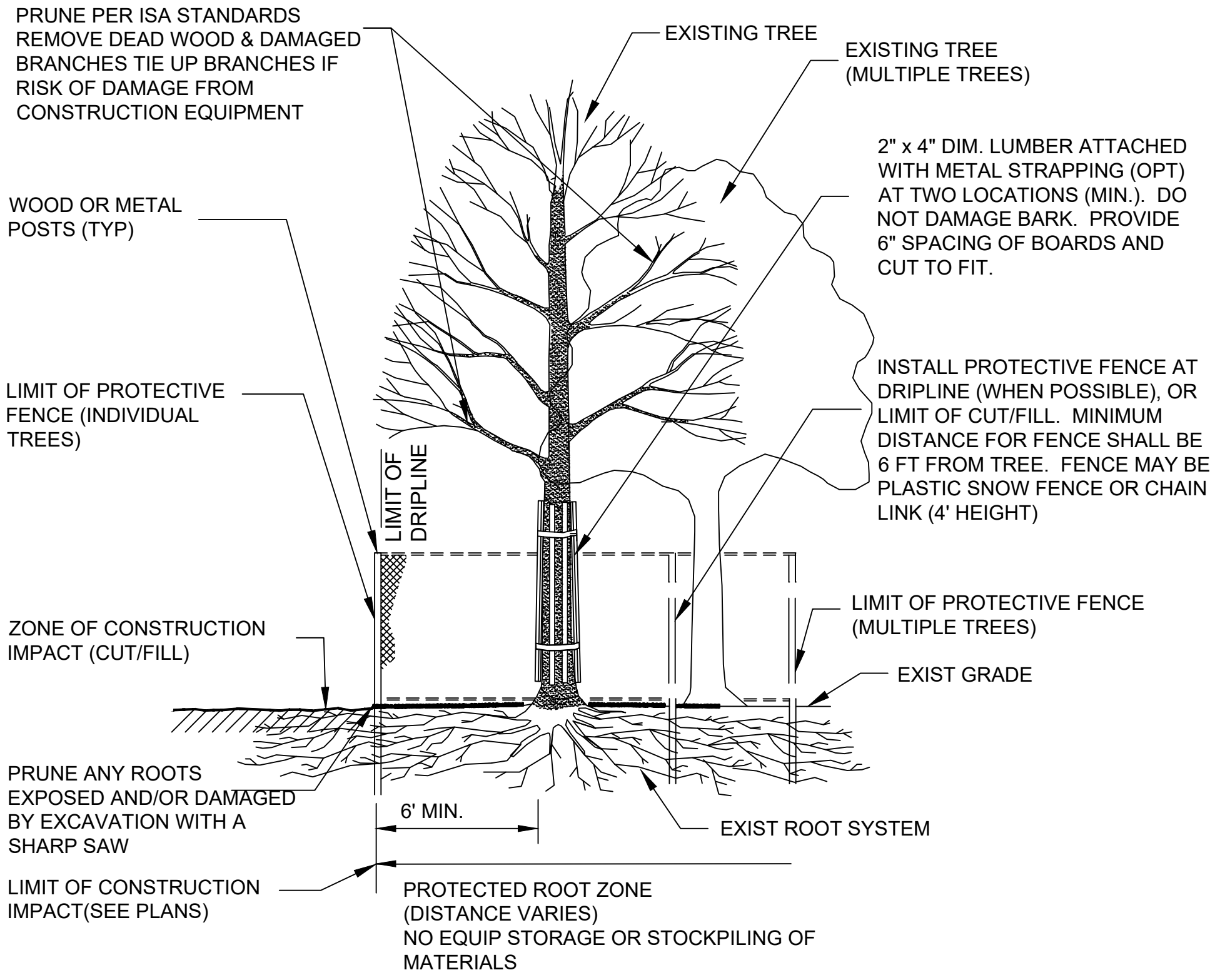


EROSION CONTROL NOTES:

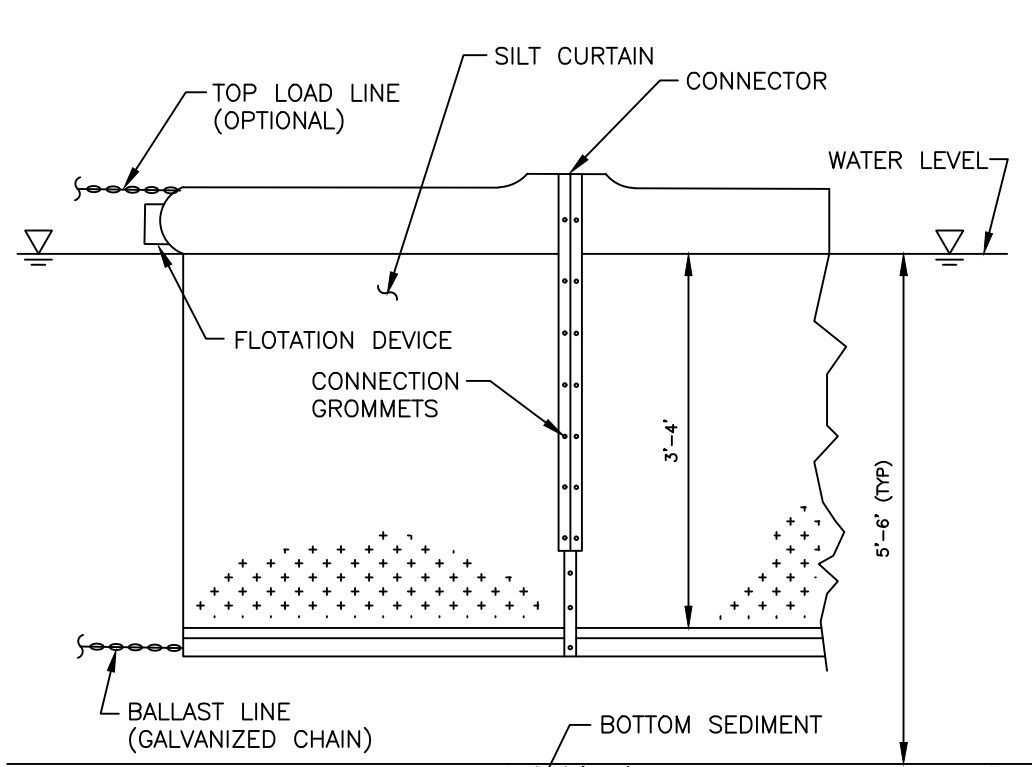
IT IS THE INTENT OF THE CONTRACT PLANS AND DETAILS TO CONTROL EROSION AND SEDIMENTATION IN ALL PORTIONS OF THE SITE. THE CONTRACTOR IS ALERTED THAT CONTROL OF EROSION AND SEDIMENTATION IS CONSIDERED TO BE ESPECIALLY IMPORTANT IN AND AROUND THE AREAS SHOWN ON THE PLANS AND DELINEATED AS WETLANDS AND WATERCOURSES. THE CONTRACTOR IS TO IMPLEMENT THE EROSION AND SEDIMENTATION CONTROLS INDICATED ON THE PLANS IN ACCORDANCE WITH THE FOLLOWING NOTES, BUT IS ALERTED TO THE FACT THAT ADDITIONAL MEASURES MAY BE REQUIRED TO COMPLY WITH THIS INTENT, AS FIELD CONDITIONS MAY WARRANT. SHOULD SUCH MEASURES BE DETERMINED TO BE REQUIRED OR ORDERED BY THE ENGINEER, THEY ARE TO BE IMPLEMENTED IMMEDIATELY. ANY AND ALL REQUIREMENTS FOR ANY TYPE OF EROSION CONTROL MEASURES SHALL BE INCIDENTAL TO THE PROJECT.

1. ALL WORK SHALL BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS. THE PROVISIONS OF ALL APPLICABLE PERMITS AND APPROVALS ISSUED BY LOCAL AND STATE REGULATION FOR ACTIVITIES INVOLVING WETLANDS, WATERCOURSES AND/OR EROSION CONTROLS, AND AS DIRECTED BY THE ENGINEER. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE MASS DEP'S EROSION AND SEDIMENTATION CONTROL GUIDELINES, AUGUST, 1983 AND THE U.S.D.A. SCS'S EROSION AND SEDIMENT CONTROL IN SITE DEVELOPMENT, MASSACHUSETTS CONSERVATION GUIDE, SEPTEMBER 1983.
2. TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE COMMENCEMENT OF ANY SITWORK, SHALL BE MAINTAINED DURING CONSTRUCTION, AND SHALL REMAIN IN PLACE UNTIL ALL SITWORK IS COMPLETED AND GROUND COVER IS ESTABLISHED (AT LEAST 75% UNIFORM COVERAGE BY NEW SEEDLINGS).
3. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE MAINTAINED IN EFFECTIVE CONDITION THROUGHOUT THE CONSTRUCTION PERIOD. THE CONTRACTOR SHALL INSPECT THE EROSION CONTROLS DAILY AND CLEAN ACCUMULATED MATERIALS FROM BEHIND THEM, AS NECESSARY. ALL EROSION AND SEDIMENTATION CONTROL MEASURES FOUND TO BE IN NEED OF REPAIR OR REPLACEMENT SHALL BE IMMEDIATELY CORRECTED, SO AS TO MAINTAIN THE INTEGRITY OF THE EROSION AND SEDIMENTATION CONTROL SYSTEM.
4. SEDIMENT REMOVED FROM CONTROL STRUCTURES SHALL BE DISPOSED OF IN A MANNER WHICH IS CONSISTENT WITH THE INTENT OF THESE PLANS. NO EQUIPMENT OR MATERIAL OF ANY KIND SHALL BE STOCKPILED OR DEPOSITED IN ANY REGULATED AREA UNLESS SPECIFICALLY SHOWN ON THE CONTRACT PLANS OR AUTHORIZED BY PROJECT PERMITS/APPROVALS.
5. STOCKPILED SOIL SHALL BE SURROUNDED WITH STAKED STRAW BALES AND SILTATION FENCES TO PREVENT AND CONTROL SILTATION AND EROSION. STOCKPILES THAT WILL REMAIN EXPOSED FOR MORE THAN 30 DAYS SHALL BE STABILIZED WITH MULCH OR SEEDED FOR TEMPORARY VEGETATIVE COVER.
6. ALL DISTURBED AREAS THAT WILL REMAIN EXPOSED OR UNDISTURBED FOR A PERIOD OF FOURTEEN (14) DAYS OR LONGER, SHALL BE STABILIZED WITH MULCH OR SEEDED FOR TEMPORARY VEGETATIVE COVER.

7. STRAW BALE BARRIERS, COMPOST FILTER TUBES OR EQUIVALENT BARRIER APPROVED BY THE ENGINEER, SHALL BE PLACED AROUND CATCH BASIN INLETS DURING CONSTRUCTION AND SHALL BE MAINTAINED UNTIL CONTRIBUTING AREAS ARE PAVED. SILT FENCE BARRIERS, OR EQUIVALENT BARRIER APPROVED BY THE ENGINEER SHALL BE PLACED BETWEEN FRAMES AND GRATES TO PREVENT ANY TYPE OF SILT RUN-OFF INTO ANY EXISTING OR NEW CATCH BASINS.
8. THE CONTRACTOR SHALL INSPECT ALL PORTIONS OF THE SITE IN ANTICIPATION OF RAINFALL EVENTS TO DETERMINE IF SITE GRADING IS SUFFICIENT TO PREVENT EROSION OF SLOPES OR WATERCOURSES WITHIN THE PROJECT LIMITS. SHOULD ADDITIONAL MEASURES BE REQUIRED, THEY ARE TO BE IMPLEMENTED IMMEDIATELY. IN NO CASE SHALL THE INSTALLATION OF ADDITIONAL MEASURES NECESSARY TO PROTECT SLOPES WITHIN THE PROJECT LIMITS BE DELAYED BEYOND THE COMMENCEMENT OF PRECIPITATION.
9. ALL DISTURBED EARTH SLOPES SHALL BE STABILIZED WITH PERMANENT VEGETATIVE COVER AS SOON AS POSSIBLE. DISTURBED AREAS THAT ARE NOT SUBJECT TO CONSTRUCTION TRAFFIC SHALL RECEIVE A PERMANENT OR TEMPORARY VEGETATIVE COVER AS SOON AS FINAL CONTOURS ARE ESTABLISHED. IF THE SEASON PREVENTS THE ESTABLISHMENT OF A VEGETATIVE COVER, DISTURBED AREAS SHALL BE THOROUGHLY MULCHED. MULCHED AREAS SHALL BE SEEDED AS SOON AS WEATHER CONDITIONS ALLOW.
10. A STOCKPILE OF ADDITIONAL COMPOST TUBES, SILTATION FENCE AND CRUSHED STONE SHALL BE KEPT ON SITE THROUGHOUT THE CONSTRUCTION WORK. THIS MATERIAL SHALL BE INSTALLED AT THE DIRECTION OF THE ENGINEER TO MITIGATE ANY EROSION/SEDIMENTATION CONDITIONS WHICH MAY ARISE.
11. FOR DESCRIPTION, MATERIALS, AND CONSTRUCTION METHOD, SEE SPECIAL PROVISIONS. FOR LOCATION OF PROPOSED EROSION CONTROL MEASURES, SEE PLANS. AREAS DISTURBED BY EROSION BARRIERS SHALL BE LOAMED AND SEEDED, OR OTHERWISE RESTORED TO ORIGINAL CONDITION.
12. THE CONTRACTOR SHALL REMOVE ALL SEDIMENTATION CONTROL SYSTEMS, REMOVE ALL ACCUMULATED SEDIMENTS, AND SEED THE DISTURBED AREAS WHEN THE CONTROL SYSTEMS ARE NO LONGER REQUIRED. THE CONTRACTOR SHALL REQUEST AND RECEIVE PERMISSION FROM THE ENGINEER PRIOR TO REMOVING ANY CONTROL SYSTEM.
13. ALL WORK ASSOCIATED WITH TEMPORARY EROSION CONTROL MEASURES AND ACTIVITIES NOT INCLUDED UNDER A SPECIFIC PAY ITEM SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.

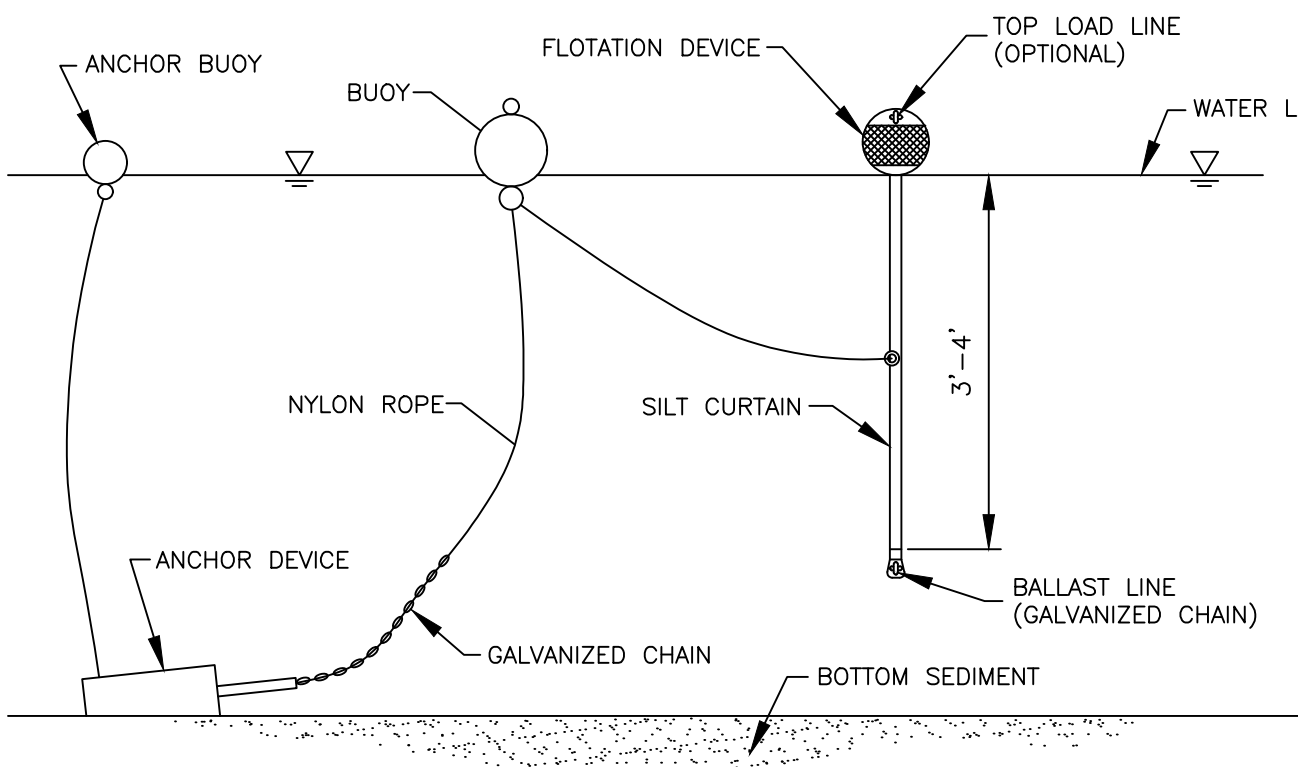


EXISTING TREE PROTECTION  
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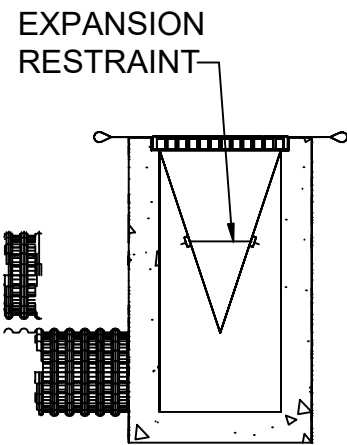


SECTION VIEW

SILT (TURBIDITY) CURTAIN  
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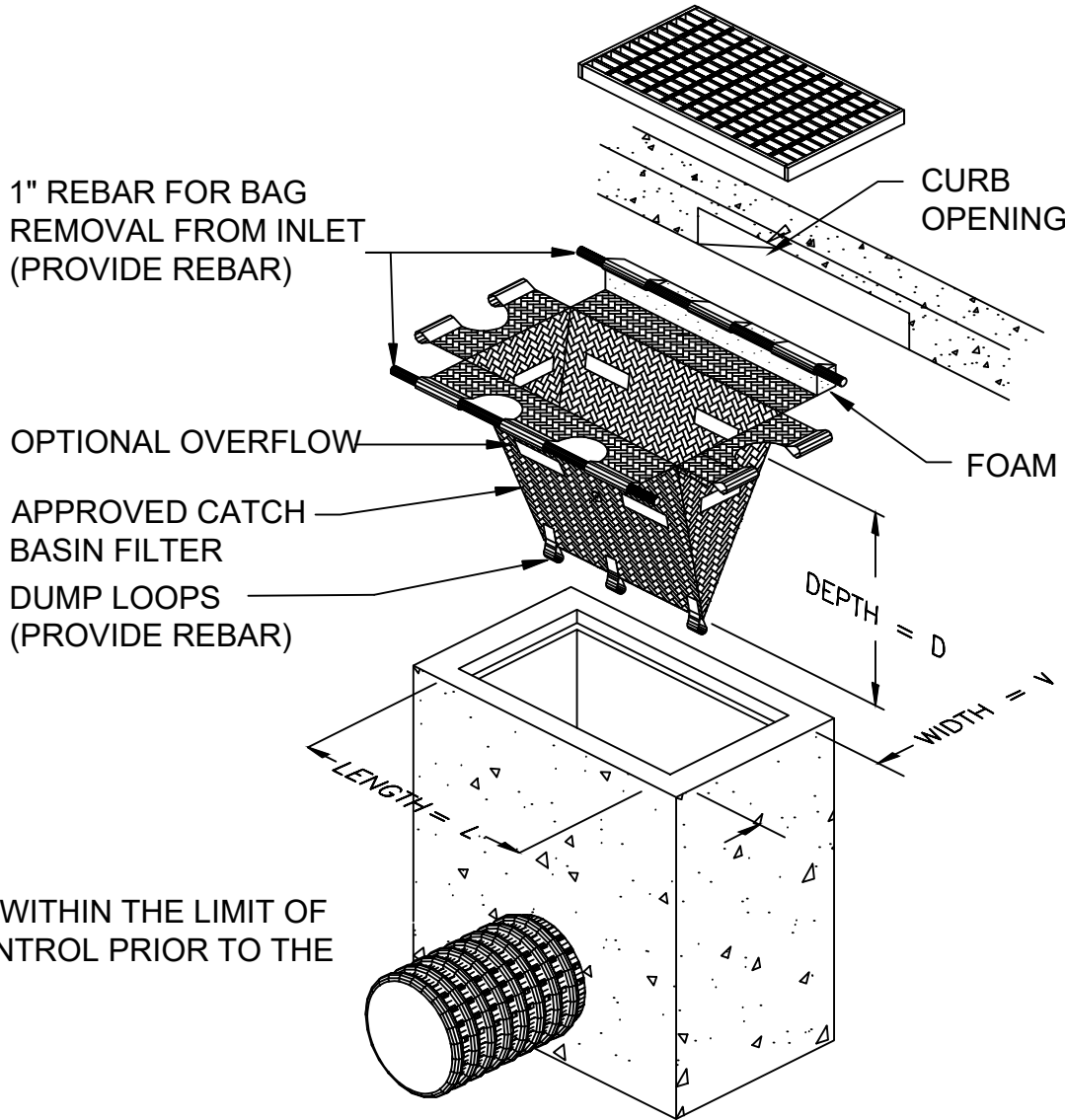


SIDE VIEW

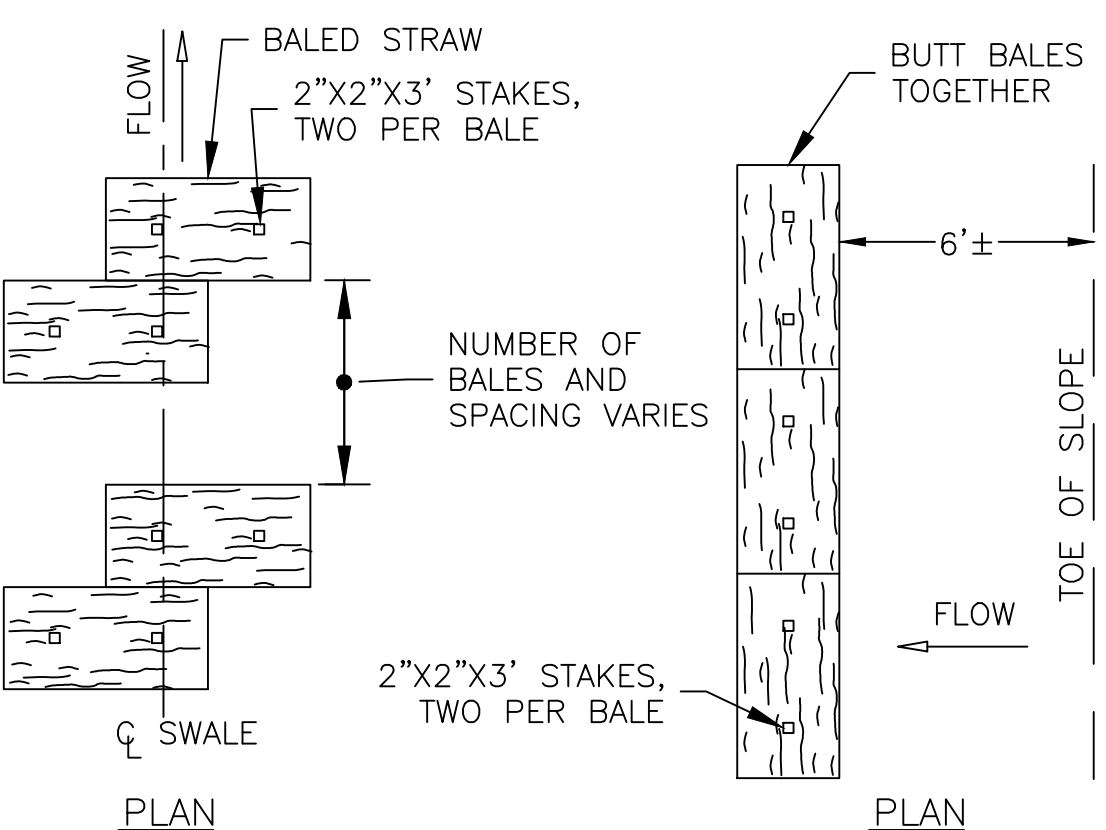


SIDE VIEW INSTALLED

NOTE:  
ALL EXISTING CATCH BASINS WITHIN THE LIMIT OF WORK SHALL HAVE INLET CONTROL PRIOR TO THE START OF CONSTRUCTION.

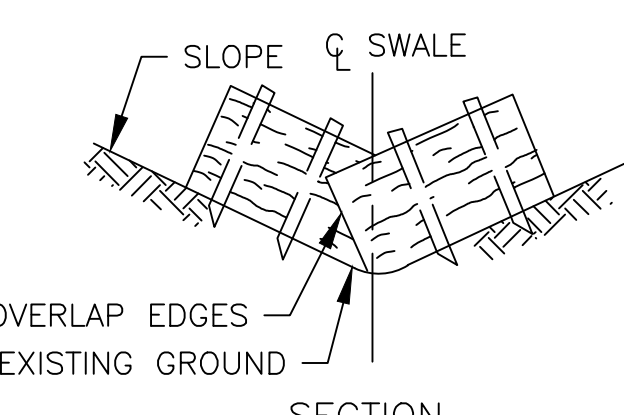


INLET SEDIMENT CONTROL  
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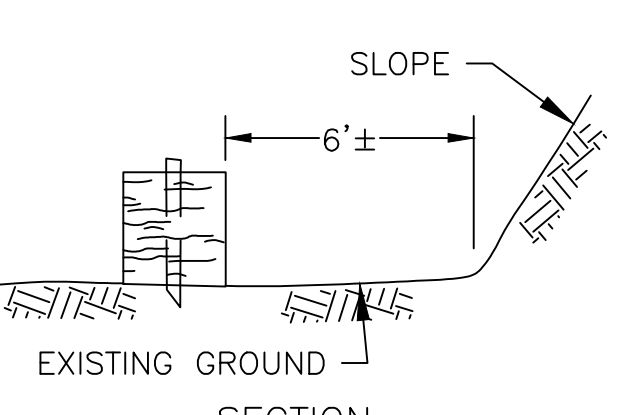


PLAN

PLAN



SECTION

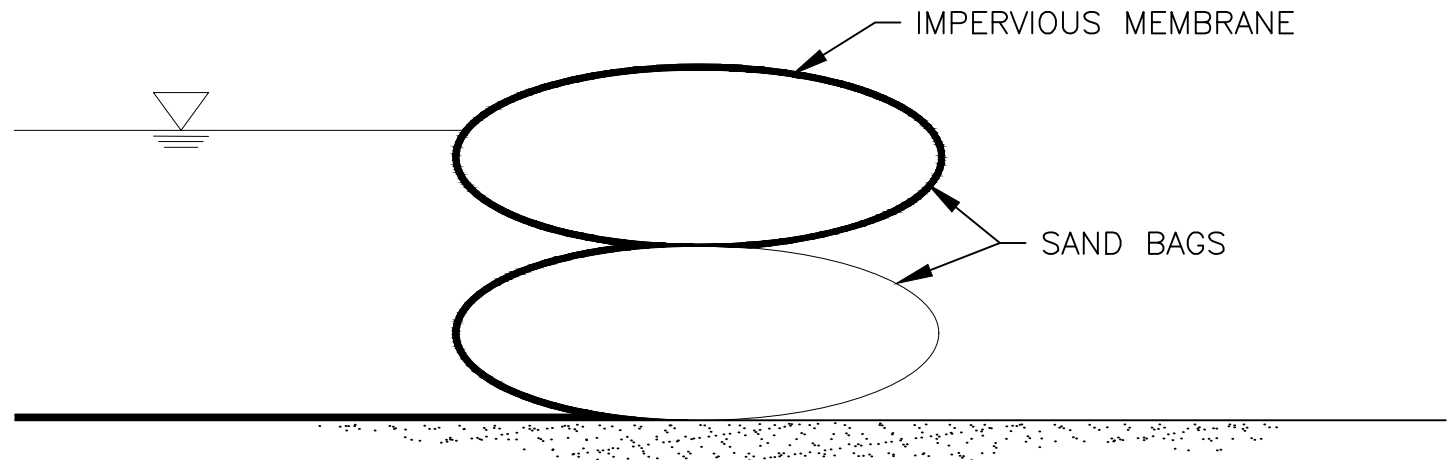


SECTION

NOTE:  
TO BE USED IN LOCATIONS WHERE THE EXISTING GROUND SLOPES TOWARD THE TOE OF SLOPE

NOTE:  
TO BE USED IN LOCATIONS WHERE THE EXISTING GROUND SLOPES AWAY FROM THE TOE OF SLOPE

STRAW BALES DETAIL  
N.T.S.



COFFERDAM  
NOT TO SCALE

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E&S DETAILS

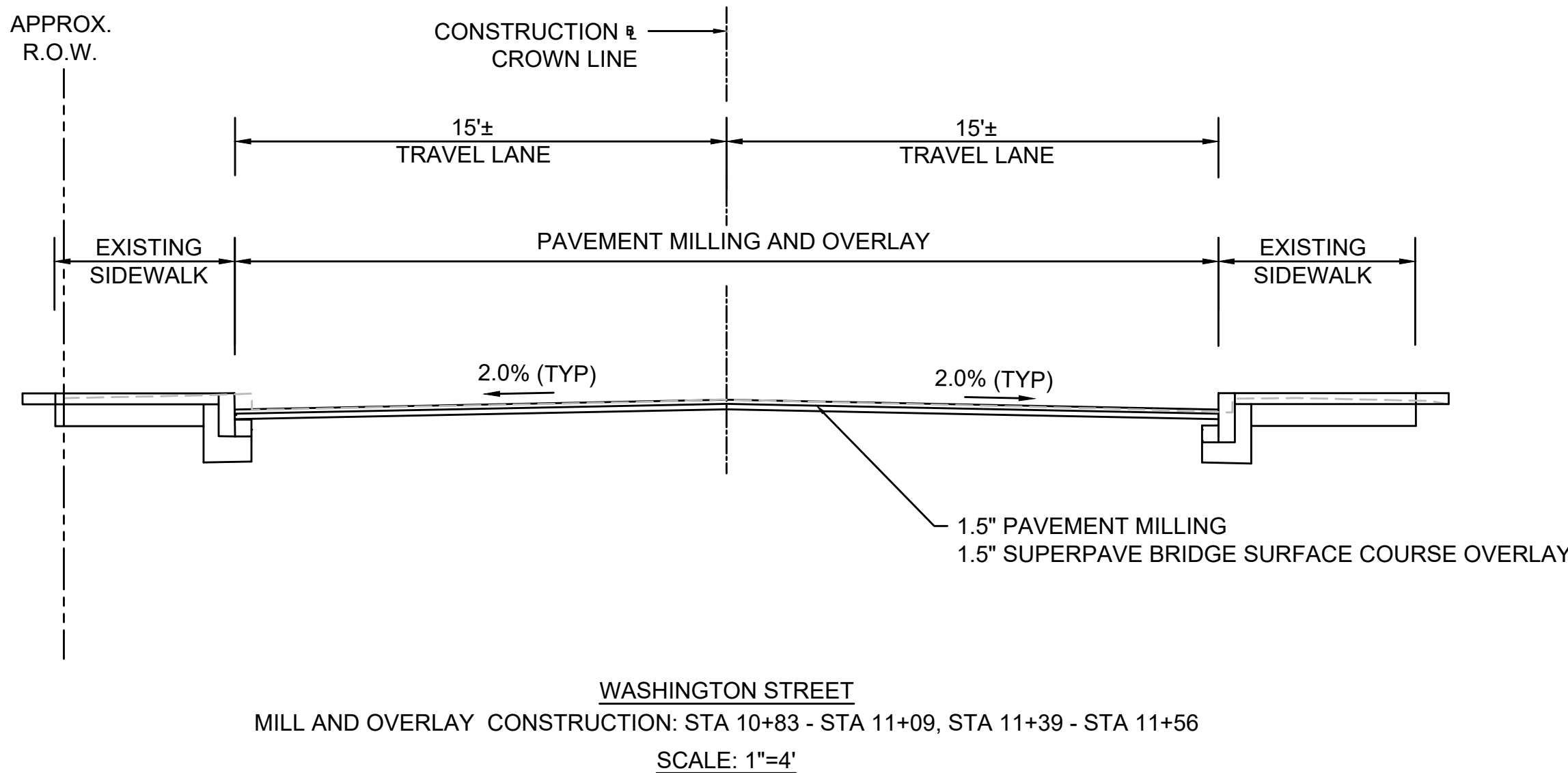
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C-2

Rev. 2.0 Date: July 2020



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PAVEMENT NOTES

PAVEMENT MILLING AND OVERLAY:

- 1 1/2" SUPERPAVE BRIDGE SURFACE COURSE - 9.5 (SSC-B-9.5) OVER ASPHALT EMULSION FOR TACK COAT OVERLAY
- 1 3/4" PAVEMENT MICRO MILLING

PROPOSED BRIDGE PAVEMENT:

- 1.5" SUPERPAVE BRIDGE SURFACE COURSE - 9.5 (SSC-B-9.5) OVER ASPHALT EMULSION FOR TACK COAT OVERLAY
- 1.5" SUPERPAVE BRIDGE PROTECTIVE COURSE - 9.5 (SPC-9.5) OVER

Project: TOWN OF WINCHESTER  
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BRIDGE REPAIRS

WASHINGTON ST & CROSS ST  
OVER ABERJONA RIVER

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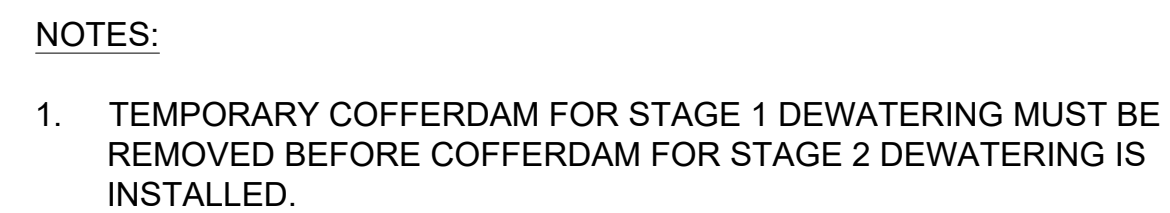
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TYPICAL SECTIONS

Sheet Number:

C-3

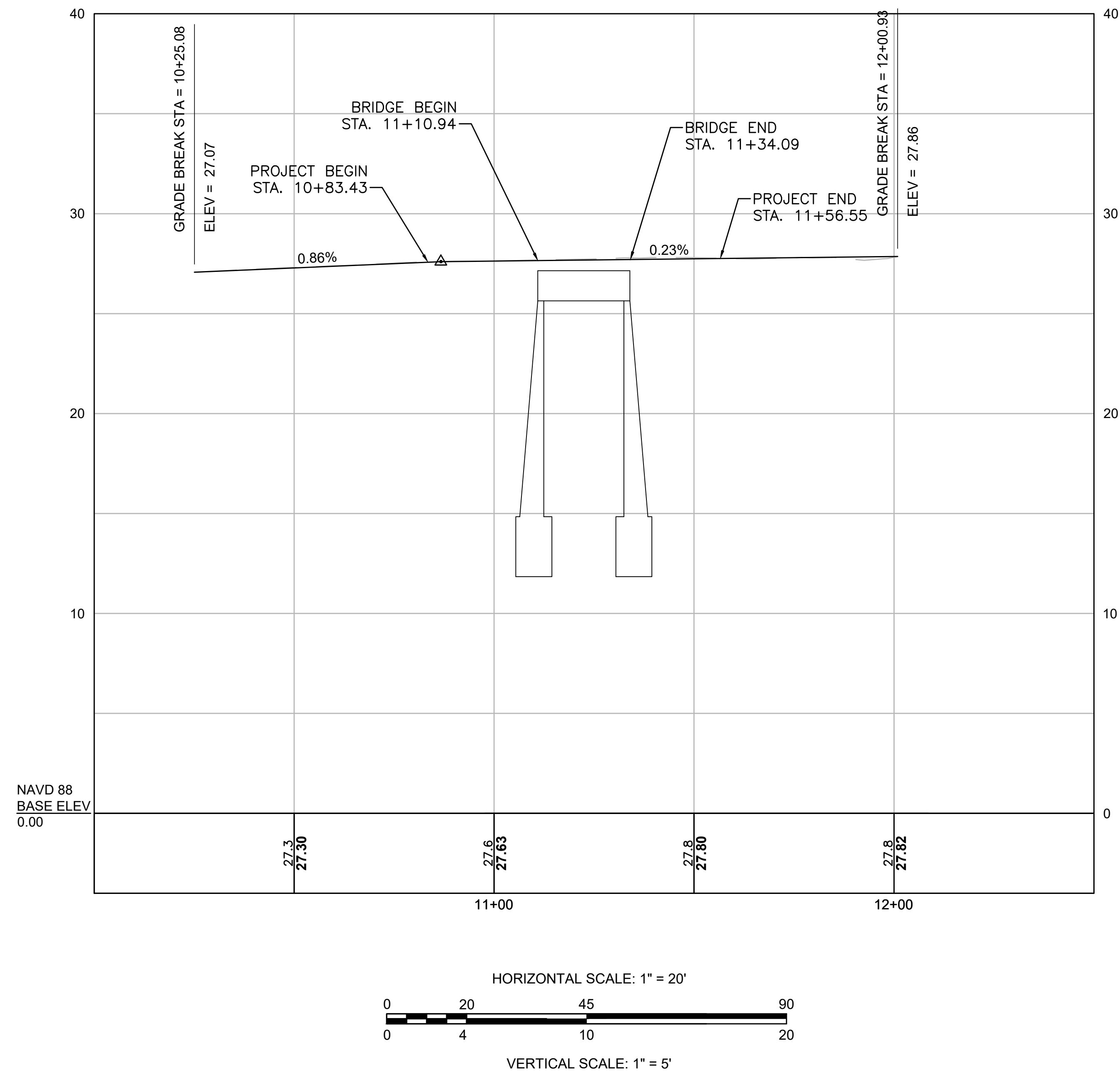
Rev: 2.0 Date: July 2020

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Scale:	AS SHOWN
Date:	06/07/2023
Drawn By:	SRG
Reviewed By:	KAC
Approved By:	XXX



# WASHINGTON STREET PROFILE



project: TOWN OF WINCHESTER  
WINCHESTER, MA



## BRIDGE REPAIRS

WASHINGTON ST & CROSS ST  
OVER ABERJONA RIVER

Weston & Sampson<sup>SM</sup>

Weston & Sampson Engineers, Inc.  
100 Foxborough Boulevard, Suite 250  
Foxborough, MA 02035  
78.532.1900 800.SAMPSON  
[www.westonandsampson.com](http://www.westonandsampson.com)

consultants:

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deal:



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Date: 06/07/2023

Drawn By: SRG

Reviewed By: KAC

Approved By: XXX

W&amp;S Project No.: ENG21 - 1288

V&amp;S File No.:

Drawing Title:

WASHINGTON ST  
PLAN & PROFILE

Sheet Number:

C-5



NOTES:

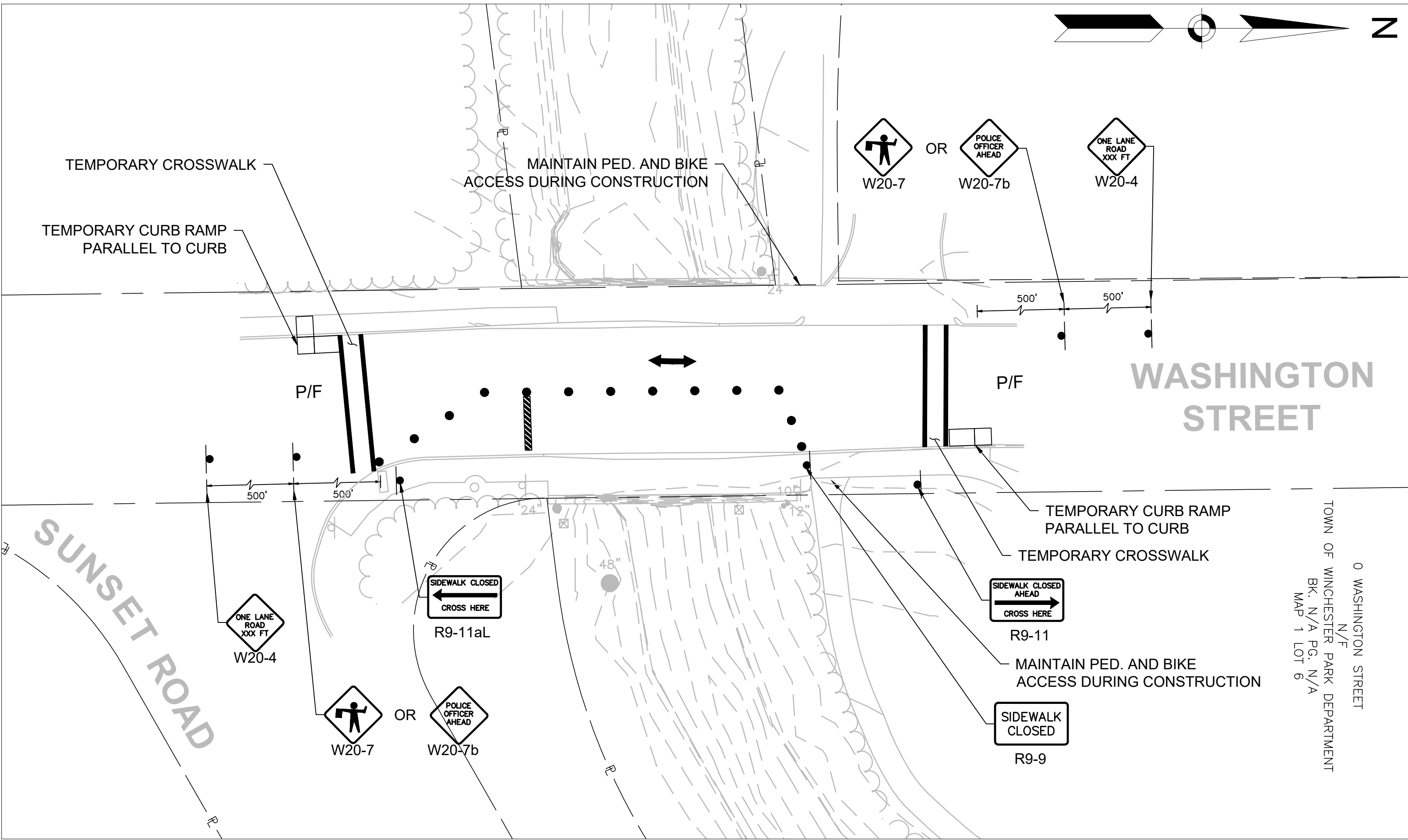
- ALL TEMPORARY TRAFFIC CONTROL WORK SHALL CONFORM TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) AND ALL REVISIONS, UNLESS SUPERCEDED BY THESE PLANS.
- ALL SIGN LEGENDS, BORDERS, AND MOUNTING SHALL BE IN ACCORDANCE WITH THE MUTCD.
- TEMPORARY CONSTRUCTION SIGNING AND ALL OTHER TRAFFIC CONTROL DEVICES SHALL BE IN PLACE PRIOR TO THE START OF ANY WORK.
- TEMPORARY CONSTRUCTION SIGNING, BARRICADES, AND ALL OTHER NECESSARY WORK ZONE TRAFFIC CONTROL DEVICES SHALL BE REMOVED FROM THE HIGHWAY OR COVERED WHEN THEY ARE NOT REQUIRED FOR CONTROL OF TRAFFIC.
- SIGNS AND SIGN SUPPORTS LOCATED ON OR NEAR THE TRAVELED WAY, CHANNELIZING DEVICES, BARRIERS, AND CRASH ATTENUATORS MUST PASS THE CRITERIA SET FORTH IN NCHRP REPORT 350, "RECOMMENDED PROCEDURES FOR THE SAFETY PERFORMANCE EVALUATION OF HIGHWAY FEATURES" AND/OR "MANUAL FOR ASSESSING SAFETY HARDWARE" (MASH).
- CONTRACTORS SHALL NOTIFY EACH ABUTTER AT LEAST 24 HOURS IN ADVANCE OF THE START OF ANY WORK THAT WILL REQUIRE THE TEMPORARY CLOSURE OF ACCESS, SUCH AS CONDUIT INSTALLATION, EXISTING PAVEMENT EXCAVATION, TEMPORARY DRIVEWAY PAVEMENT PLACEMENT, AND SIMILAR OPERATIONS.
- THE FIRST TEN PLASTIC DRUMS OF A TAPER SHALL BE MOUNTED WITH TYPE A LIGHTS.
- THE ADVISORY SPEED LIMIT, IF REQUIRED, SHALL BE DETERMINED BY THE ENGINEER.
- DISTANCES ARE A GUIDE AND MAY BE ADJUSTED IN THE FIELD BY THE ENGINEER.
- MAXIMUM SPACING OF TRAFFIC DEVICES IN A TAPER (DRUMS OR CONES) IS EQUAL IN FEET TO THE SPEED LIMIT IN MPH.
- MINIMUM LANE WIDTH IS TO BE 11 FEET UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF DRUMS OR MEDIAN BARRIER.
- PEDESTRIANS SHALL BE PROVIDED WITH ACCESS AND SAFE PASSAGE THROUGH THE TEMPORARY TRAFFIC CONTROL ZONE AT ALL TIMES.
- NO DIFFERENCE IN ROADWAY LANE ELEVATION WILL BE ALLOWED AT THE END OF THE WORK DAY.
- DASHED LINES SHOW LANE DESIGNATIONS TO BE USED DURING CONSTRUCTION.
- THE CONTRACTOR SHALL SUBMIT ANY REVISIONS TO THE CONSTRUCTION ZONE SAFETY PLAN TO THE ENGINEER APPROVAL.
- THIS CONSTRUCTION ZONE SAFETY PLAN SHALL NOT RELIEVE THE CONTRACTOR OF HIS SOLE RESPONSIBILITY FOR CONSTRUCTION SITE SAFETY.
- ACCESS TO WASHINGTON STREET AND SUNSET ROAD SHALL BE MAINTAINED ALL THE TIMES DURING CONSTRUCTION.

LEGEND:

- REFLECTORIZED PLASTIC DRUM OR 36" CONE
- WORK ZONE
- WORK VEHICLE
- P/F POLICE/FLAGGER DETAIL
- TRUCK MOUNTED ATTENUATOR
- TYPE III BARRICADE
- IMPACT ATTENUATOR
- CHANGEABLE MESSAGE SIGN
- MEDIAN BARRIER
- MEDIAN BARRIER WITH WARNING LIGHTS
- ARROW BOARD
- DIRECTION OF TRAFFIC
- TRAFFIC OR PEDESTRIAN SIGNAL
- SIGN

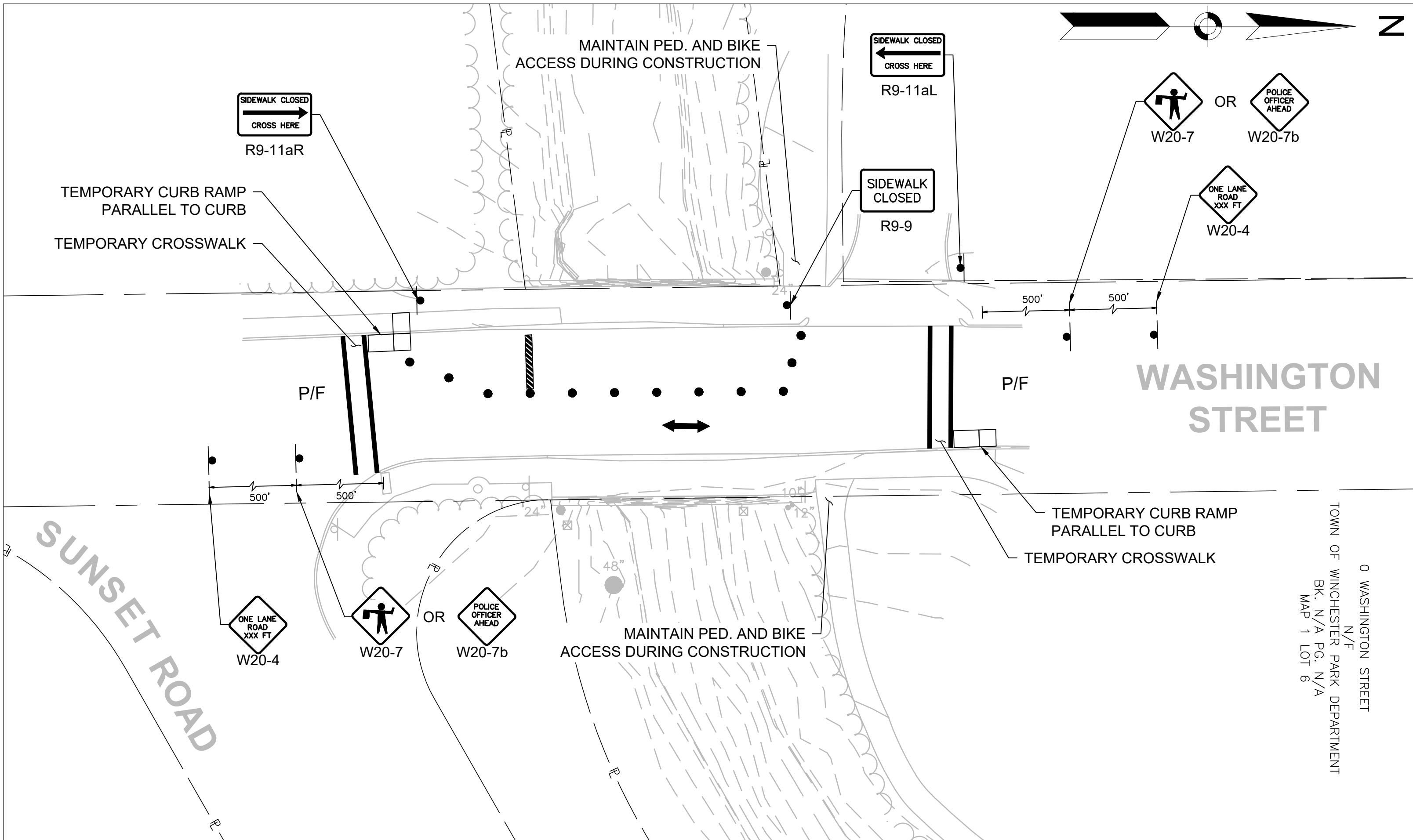
TEMPORARY TRAFFIC SIGN SUMMARY

MUTCD CODE	SIZE OF SIGN		SIGN	QTY	COLOR		
	WIDTH	HEIGHT			BACK-GROUND	LEGEND	BORDER
W20-4	36"	36"		2	FLUORESCENT ORANGE	BLACK	BLACK
MA-W20-7b	36"	36"		2	FLUORESCENT ORANGE	BLACK	BLACK
W20-7	36"	36"		2	FLUORESCENT ORANGE	BLACK	BLACK
R9-9	24"	12"		1	WHITE	BLACK	BLACK
R9-11R	24"	18"		1	WHITE	BLACK	BLACK
R9-11L	24"	18"		1	WHITE	BLACK	BLACK



TEMPORARY TRAFFIC CONTROL PLAN - EAST SIDE

SCALE: 1" = 20'



TEMPORARY TRAFFIC CONTROL PLAN - WEST SIDE

SCALE: 1" = 20'

Project: TOWN OF WINCHESTER  
WINCHESTER, MA

BRIDGE REPAIRS

WASHINGTON ST & CROSS ST  
OVER ABERJONA RIVER

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Consultants:

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No.	Date	Description

Seal:

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STRUCTURAL  
No. 48061  
REGISTERED PROFESSIONAL ENGINEER

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Reviewed By: XXX

Approved By: XXX

W&S Project No.: ENG21 - 1288

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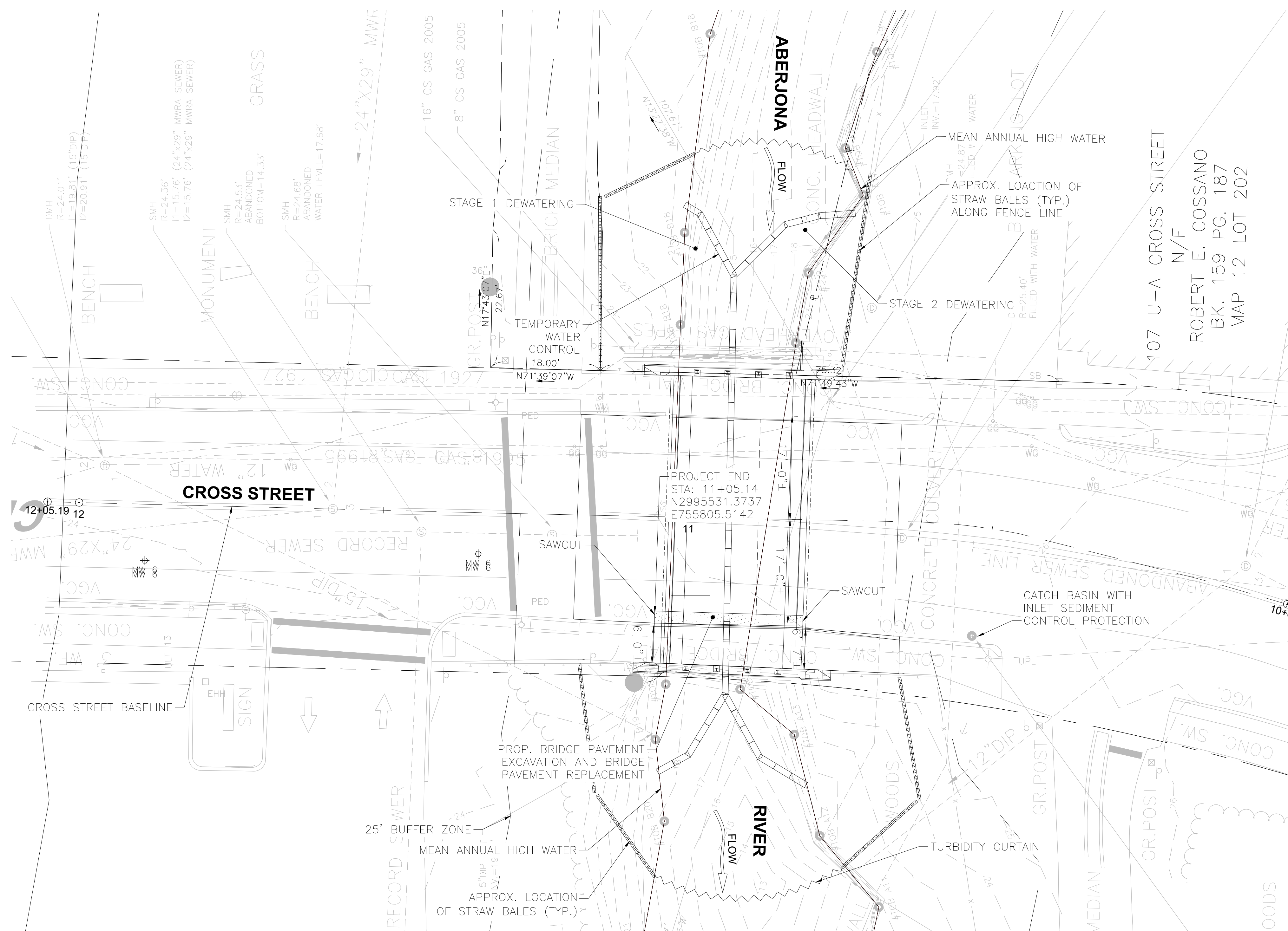
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WASHINGTON STREET  
TEMPORARY TRAFFIC  
CONTROL PLAN

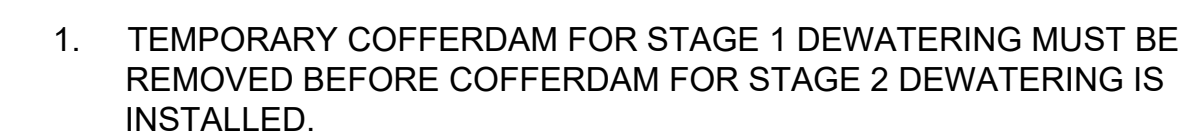
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C-6



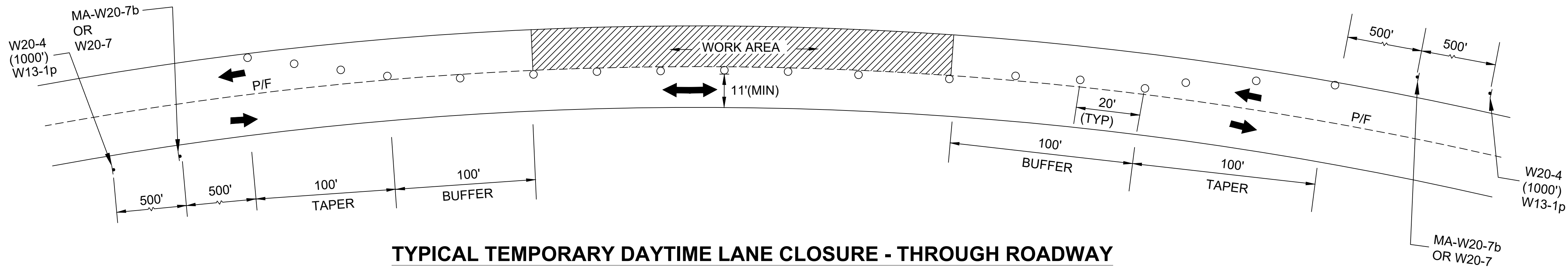


1.5" SUPERPAVE BRIDGE SURFACE COURSE - 9.5 (SSC-B-9.5) OVER  
ASPHALT EMULSION FOR TACK COAT OVERLAY OVER  
1.5" SUPERPAVE BRIDGE PROTECTIVE COURSE - 9.5 (SPC-B 9.5)



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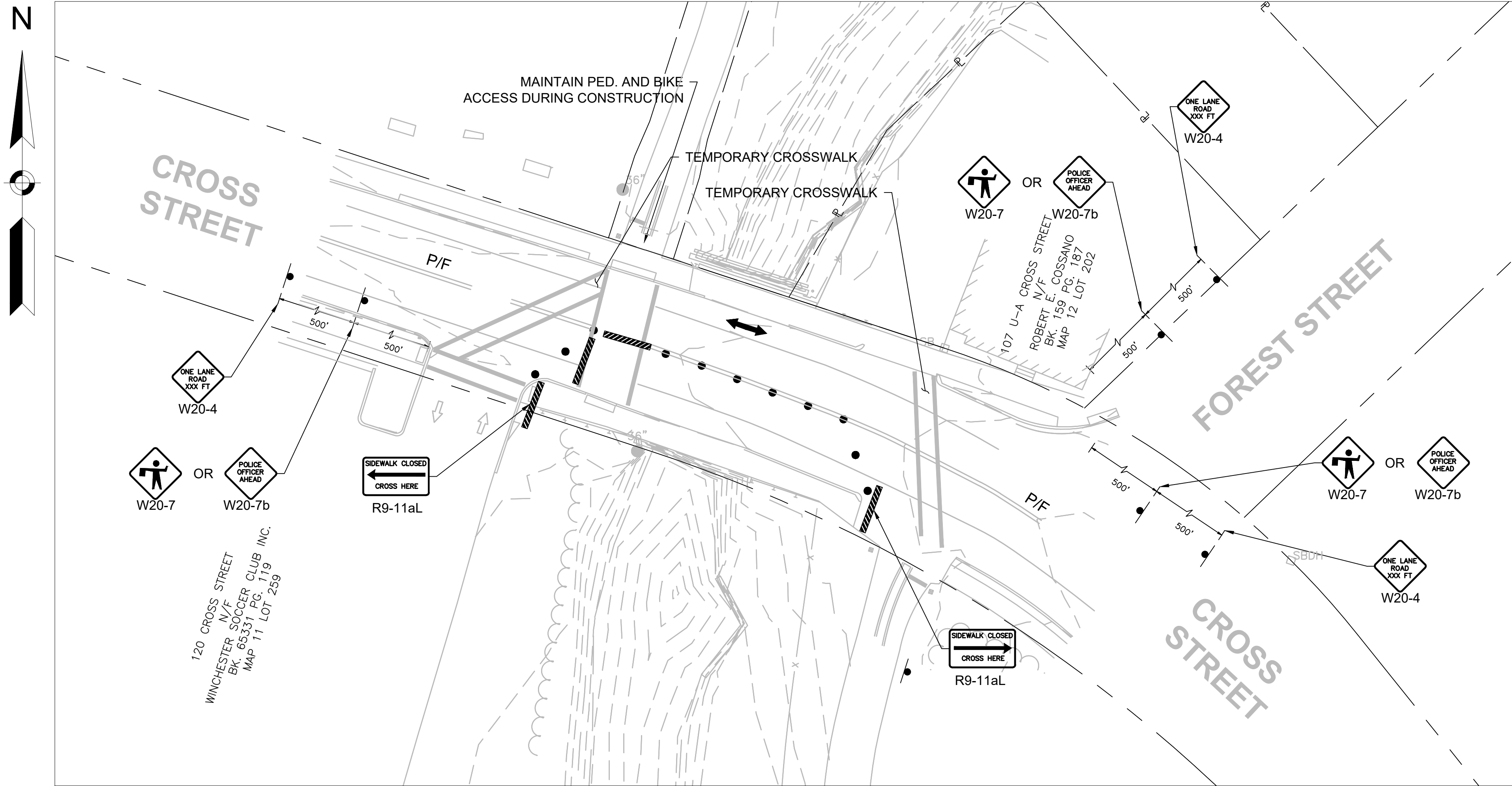




**TYPICAL TEMPORARY DAYTIME LANE CLOSURE - THROUGH ROADWAY  
(ONE LANE- BI-DIRECTIONAL)**  
N.T.S.

**NOTES:**

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- THE ADVISORY SPEED LIMIT, IF REQUIRED, SHALL BE DETERMINED BY THE ENGINEER.
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- MINIMUM LANE WIDTH IS TO BE 11 FEET UNLESS OTHERWISE SHOWN. MINIMUM LANE WIDTH TO BE MEASURED FROM THE EDGE OF DRUMS OR MEDIAN BARRIER.
- PEDESTRIANS SHALL BE PROVIDED WITH ACCESS AND SAFE PASSAGE THROUGH THE TEMPORARY TRAFFIC CONTROL ZONE AT ALL TIMES.
- NO DIFFERENCE IN ROADWAY LANE ELEVATION WILL BE ALLOWED AT THE END OF THE WORK DAY.
- DASHED LINES SHOW LANE DESIGNATIONS TO BE USED DURING CONSTRUCTION.
- THE CONTRACTOR SHALL SUBMIT ANY REVISIONS TO THE CONSTRUCTION ZONE SAFETY PLAN TO THE ENGINEER APPROVAL.
- THIS CONSTRUCTION ZONE SAFETY PLAN SHALL NOT RELIEVE THE CONTRACTOR OF HIS SOLE RESPONSIBILITY FOR CONSTRUCTION SITE SAFETY.
- ACCESS TO CROSS STREET SHALL BE MAINTAINED ALL THE TIMES DURING CONSTRUCTION.



**TEMPORARY TRAFFIC SIGN SUMMARY**

MUTCD CODE	SIZE OF SIGN		SIGN	QTY	COLOR		
	WIDTH	HEIGHT			BACK-GROUND	LEGEND	BORDER
W20-4	36"	36"	ONE LANE ROAD AHEAD	3	FLUOR-ESCENT ORANGE	BLACK	BLACK
MA-W20-7b	36"	36"	POLICE OFFICER AHEAD	3	FLUOR-ESCENT ORANGE	BLACK	BLACK
W20-7	36"	36"	PEDESTRIAN AHEAD	3	FLUOR-ESCENT ORANGE	BLACK	BLACK
R9-11R	24"	18"	SIDEWALK CLOSED CROSS HERE	1	WHITE	BLACK	BLACK
R9-11L	24"	18"	SIDEWALK CLOSED CROSS HERE	1	WHITE	BLACK	BLACK

**TEMPORARY TRAFFIC CONTROL PLAN**  
SCALE: 1" = 20'

**LEGEND:**

- REFLECTORIZED PLASTIC DRUM OR 36" CONE
- WORK ZONE
- WORK VEHICLE
- P/F POLICE/FLAGGER DETAIL
- TYPE III BARRICADE
- CHANGEABLE MESSAGE SIGN
- ARROW BOARD
- DIRECTION OF TRAFFIC
- IMPACT ATTENUATOR
- MEDIAN BARRIER
- MEDIAN BARRIER WITH WARNING LIGHTS
- TRUCK MOUNTED ATTENUATOR
- TRAFFIC OR PEDESTRIAN SIGNAL
- SIGN

Project:  
TOWN OF WINCHESTER  
WINCHESTER, MA

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Consultants:

Revisions:

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SCOTT R. BRUSO  
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No. 48961  
REGISTERED  
PROFESSIONAL ENGINEER

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W&S File No.:

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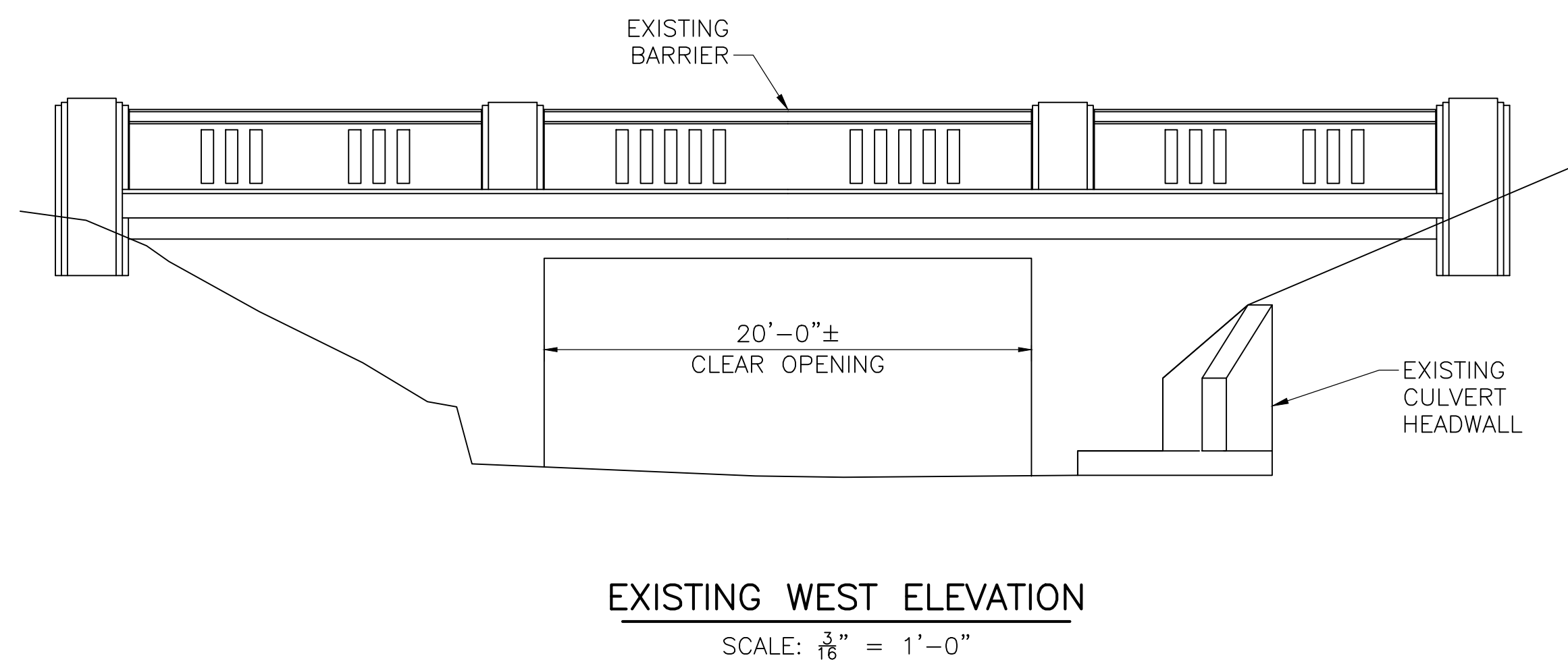
**CROSS ST  
TEMPORARY  
TRAFFIC CONTROL  
PLAN**

Sheet Number:

**C-8**

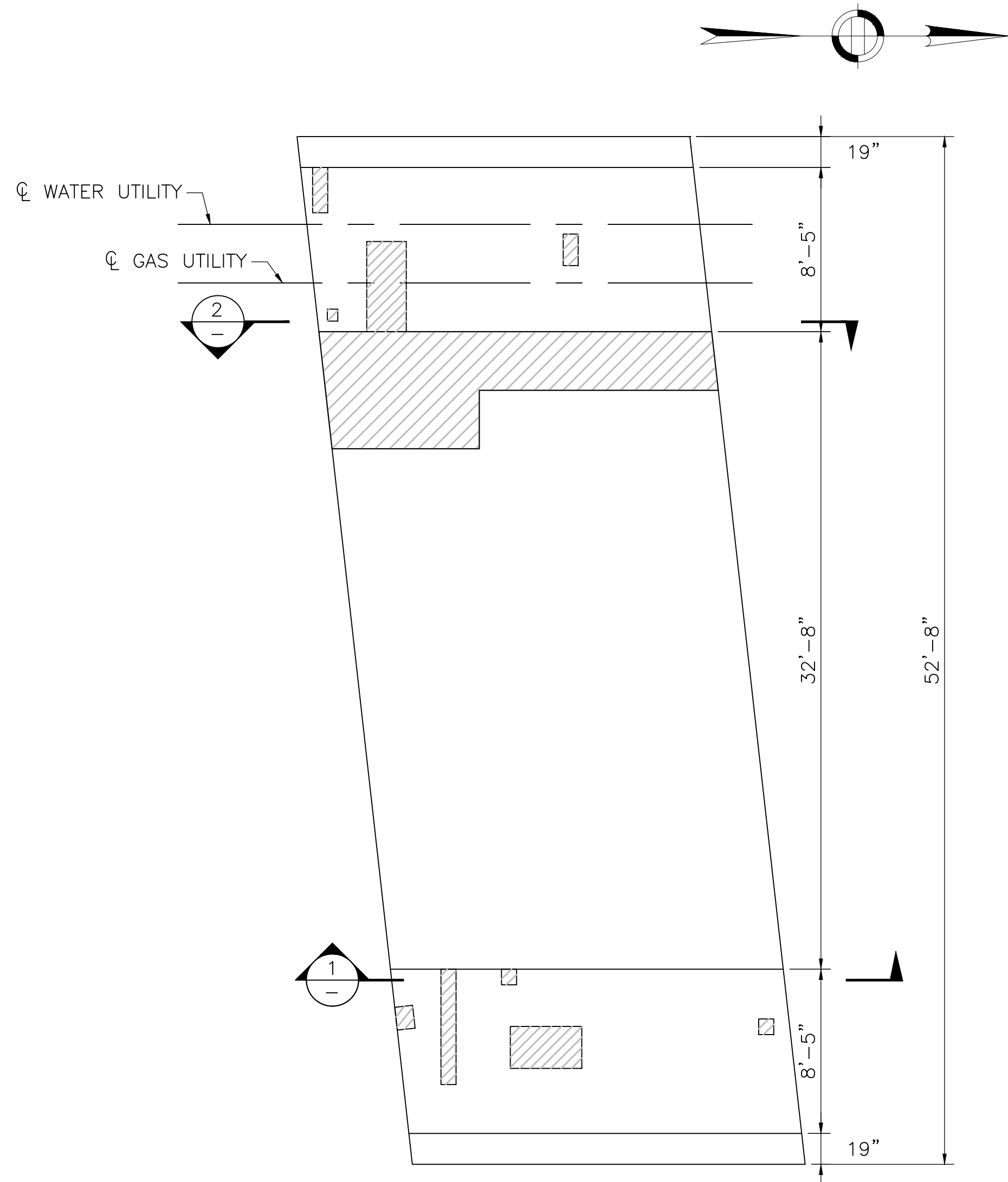
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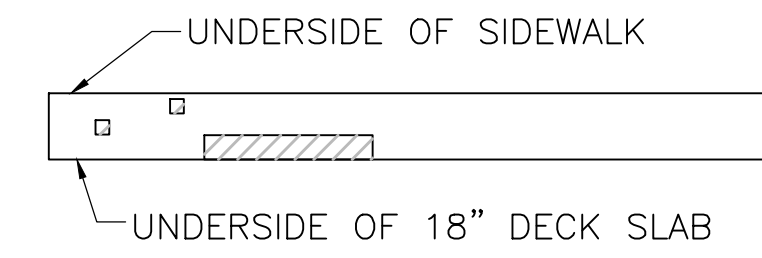




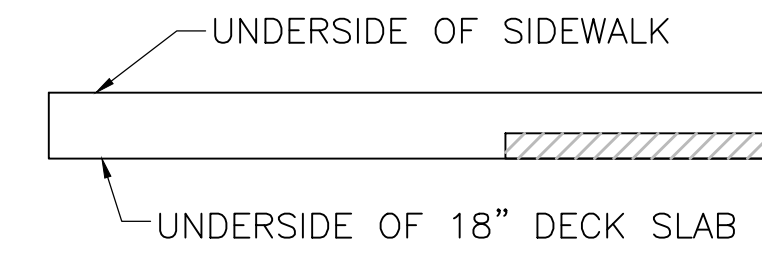
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PLAN UNDERSIDE OF BRIDGE  
SCALE:  $\frac{3}{16}" = 1'-0"$



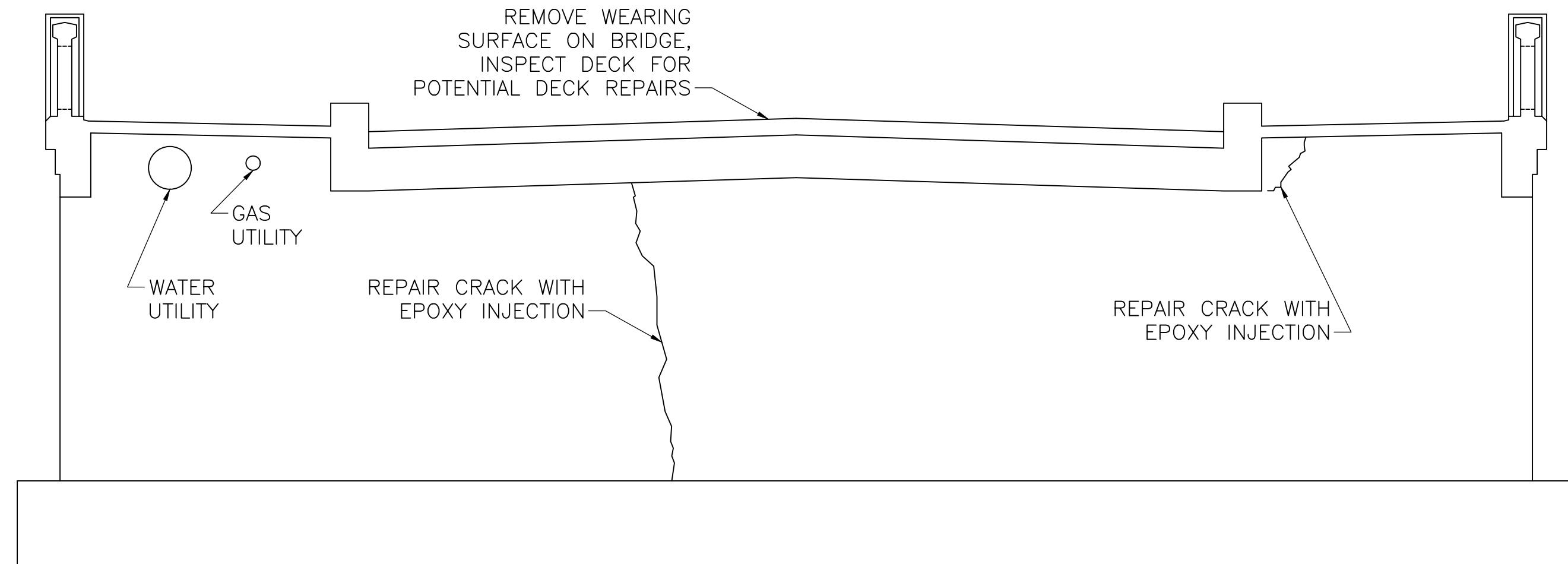
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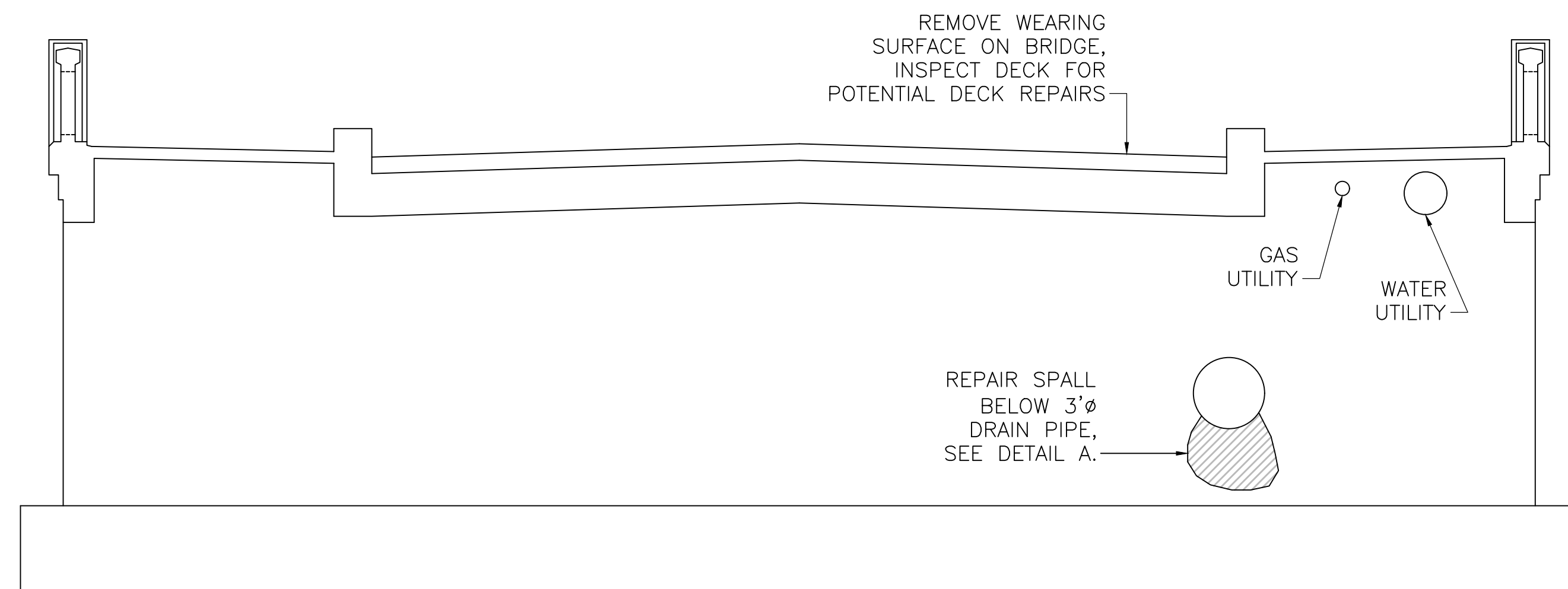
SECTION 2  
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LEGEND

APPROXIMATE AREAS  
OF SPALL REPAIRS



NORTH ABUTMENT ELEVATION  
SCALE:  $\frac{1}{4}" = 1'-0"$



SOUTH ABUTMENT ELEVATION  
SCALE:  $\frac{1}{4}" = 1'-0"$

Project:  
TOWN OF WINCHESTER  
WINCHESTER, MA  
  
BRIDGE REPAIRS  
WASHINGTON ST & CROSS ST  
OVER ABERJONA RIVER

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W&S File No.:

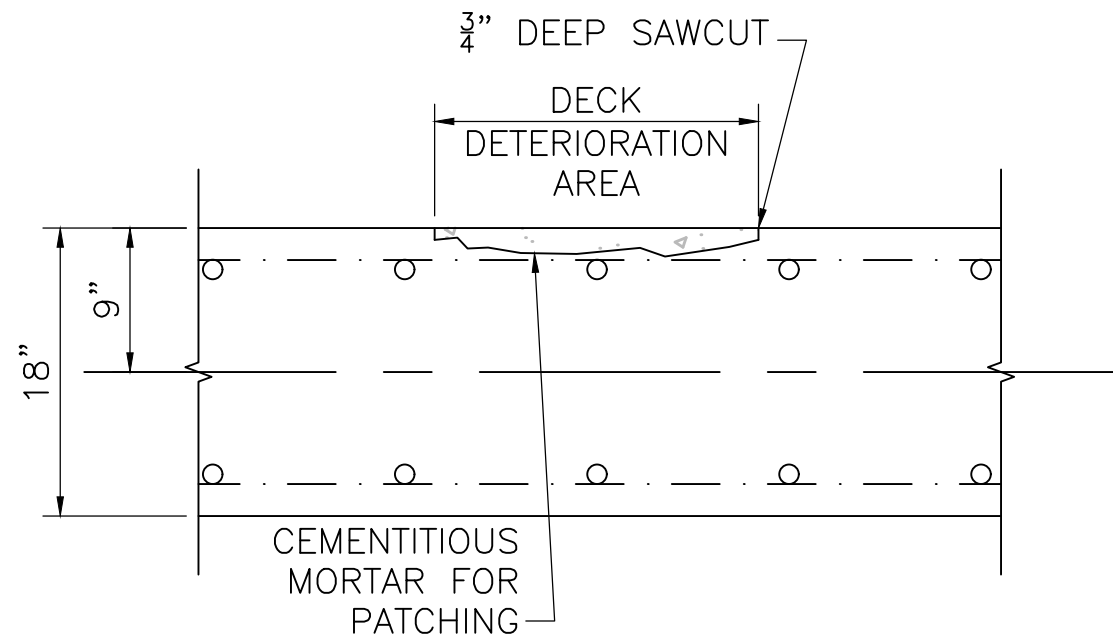
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WASHINGTON ST  
REPAIR LOCATIONS

Sheet Number:

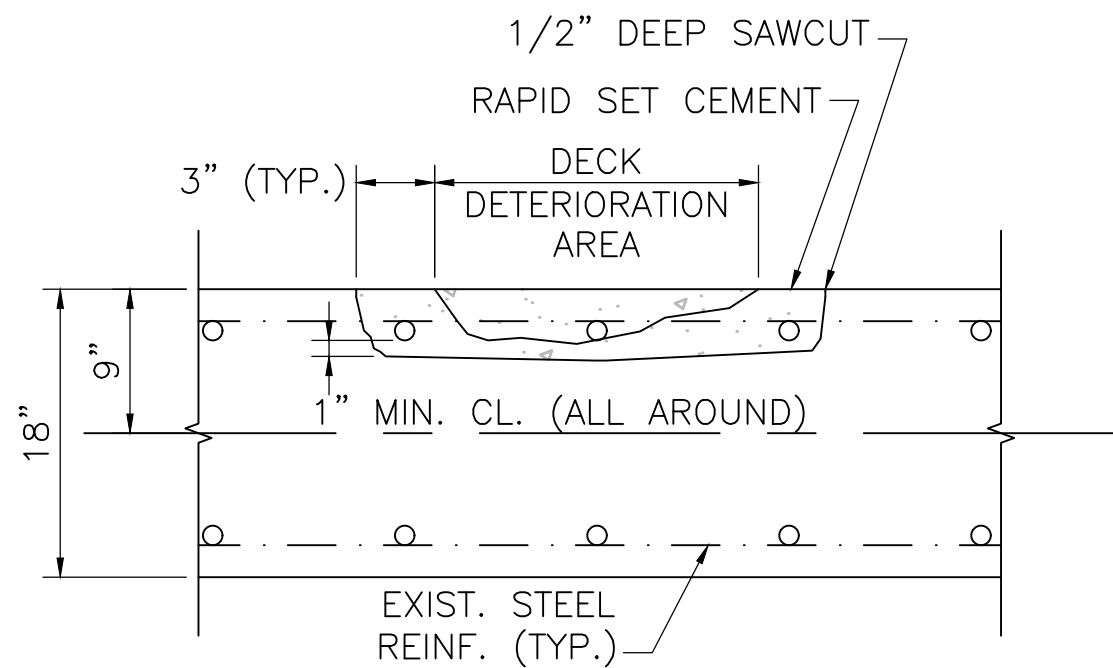
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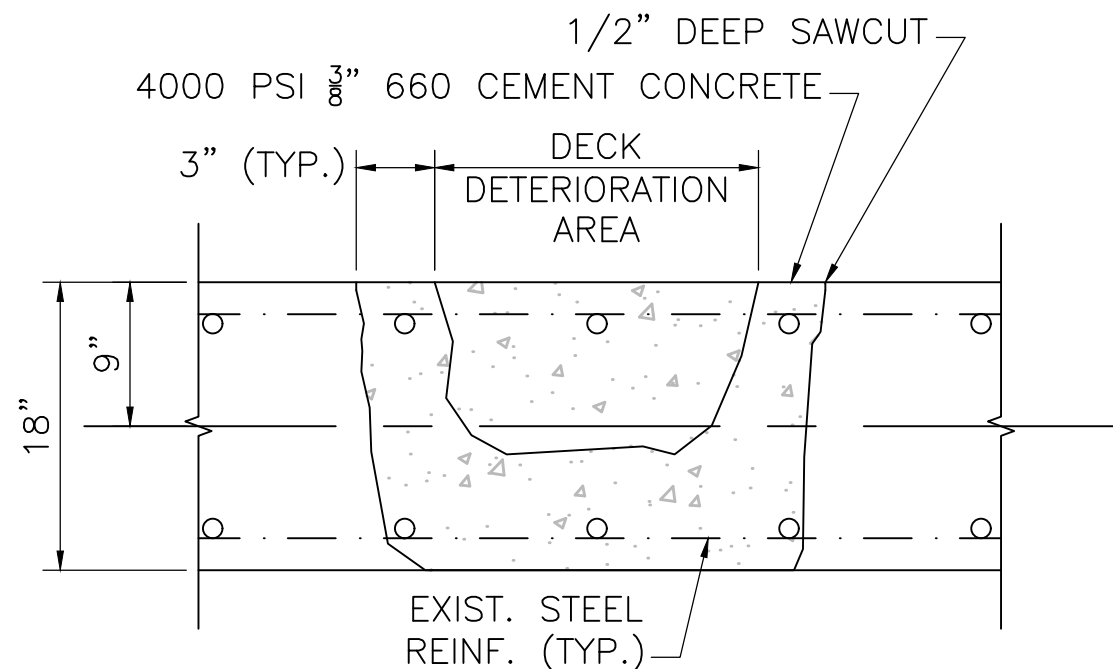
#### TYPICAL MINOR SPALL REPAIR

SCALE: 1" = 1'-0"



#### TYPICAL PARTIAL DECK REPAIR

SCALE: 1" = 1'-0"

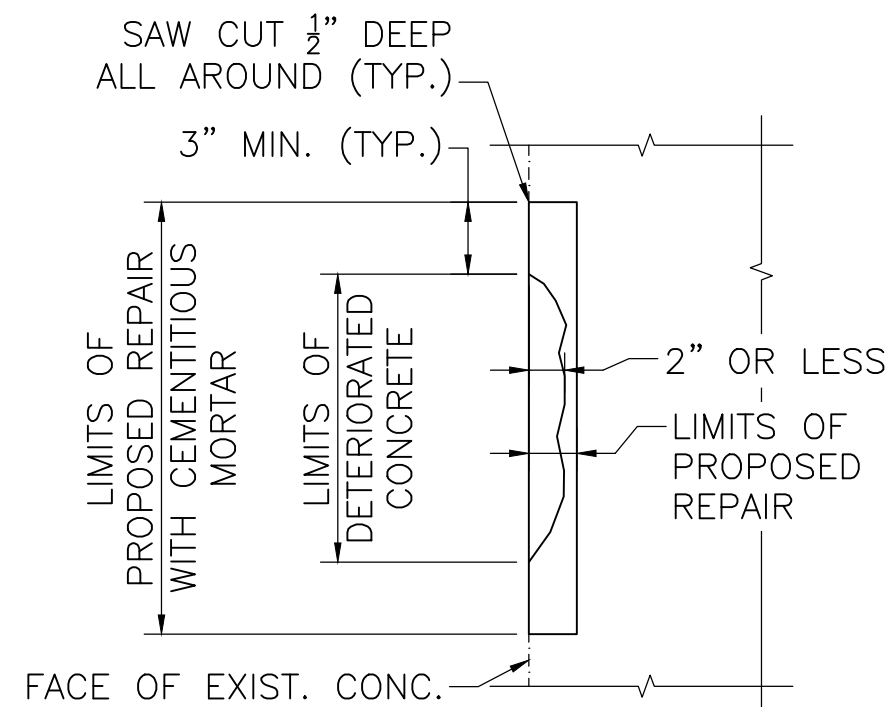


#### TYPICAL FULL DEPTH DECK REPAIR

SCALE: 1" = 1'-0"

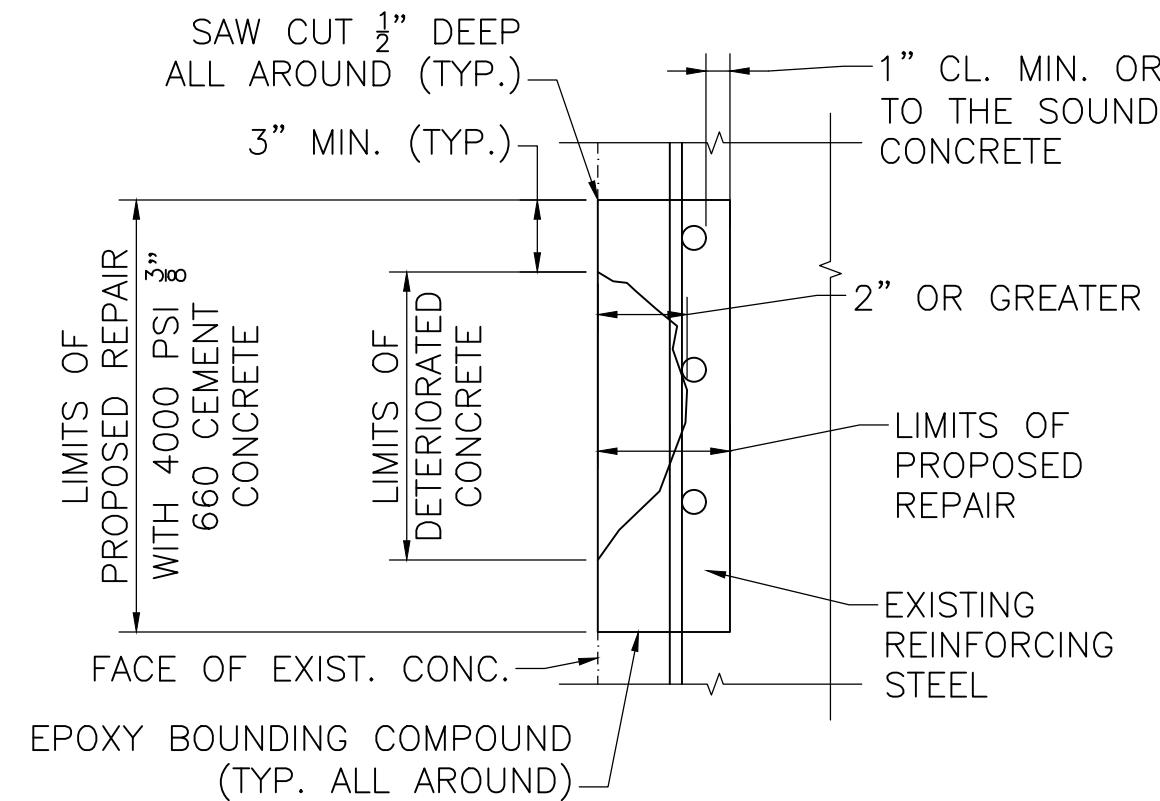
#### BRIDGE DECK REPAIR NOTES:

1. SPALLED, DELAMINATED, AND DETERIORATED CONCRETE DECK AREAS SHALL BE REPAIRED USING AN APPROVED RAPID SETTING BAGGED CONCRETE PRODUCT, RAPID SETTING LOW PERMEABILITY MOBILE MIXED CONCRETE, OR HIGH EARLY STRENGTH READY MIX CONCRETE AS DIRECTED BY THE ENGINEER.
2. PARTIAL DECK REPAIRS: ALL DETERIORATED AND DELAMINATED CONCRETE SHALL BE REMOVED TO A MINIMUM OF 1" BELOW THE BOTTOM OF THE TOP LAYER OF EXISTING TRANSVERSE REINFORCEMENT STEEL TO A MAXIMUM OF 50% OF THE THICKNESS OF THE EXISTING CONCRETE DECK.
3. FULL DEPTH REPAIRS: ALL DETERIORATED AND DELAMINATED CONCRETE SHALL BE REMOVED, AND IF THE SOUND CONCRETE SURFACE IS LOCATED AT A DEPTH GREATER THAN 50% OF THE DECK THICKNESS WHEN MEASURED FROM THE TOP OF DECK, A FULL DEPTH DECK REPAIR SHALL BE PERFORMED.
4. ALL EXISTING REINFORCING STEEL AND CONCRETE SURFACES THAT ARE TO BE IN CONTACT WITH REPAIR CONCRETE SHALL BE ABRASIVELY BLAST CLEANED IN ORDER TO REMOVE ALL RUST, OIL, AND DEBRIS THAT IS NOT TIGHTLY ADHERED, FOLLOWED BY APPLICATION OF COMPRESSED AIR TO REMOVE ALL DUST.
5. NEW EPOXY COATED STEEL REINFORCEMENT SHALL BE PLACED TO SUPPLEMENT EXISTING REINFORCEMENT THAT HAS A SECTION LOSS OF 25% OR MORE OF THE ORIGINAL CROSS SECTION AREA OR HAS BROKEN, AS DETERMINED BY THE ENGINEER. NEW REINFORCEMENT SHALL EXTEND 30 BAR DIAMETERS IN EACH DIRECTION FROM WHERE THE SECTION LOSS OR BREAK ENDS. THE LIMITS OF THE REPAIR SHALL BE MODIFIED TO MEET THE REINFORCEMENT STEEL LAP SPICE REQUIREMENTS. NEW REINFORCING STEEL SHALL BE PLACED AT THE SAME LEVEL ALONGSIDE THE EXISTING DETERIORATED OR BROKEN REINFORCING STEEL.



#### TYPE A SPALL REPAIR – LESS THAN 2" DEEP

SCALE: 1 1/2" = 1'-0"

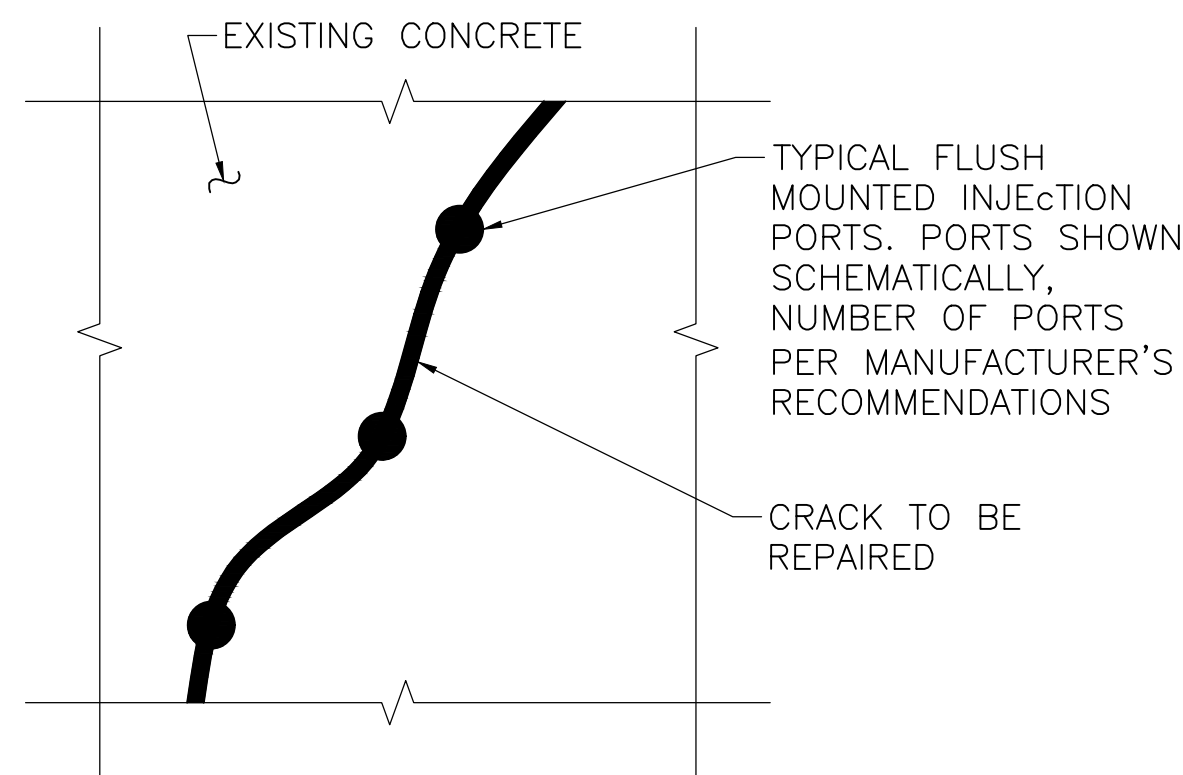


#### TYPE B SPALL REPAIR – MORE THAN 2" DEEP

SCALE: 1 1/2" = 1'-0"

#### NOTES:

1. CONTRACTOR TO PERFORM A FIELD SURVEY TO DETERMINE LIMITS OF DETERIORATION AND REQUIRES REPAIRS (SEE NOTES ON SHEET S1).
2. AFTER APPROVAL OF LIMITS IS RECEIVED FROM THE ENGINEER, CONTRACTOR TO REMOVE DETERIORATED CONC. TO SOUND CONC. AT REPAIR LOCATIONS.
3. IF MORE THAN 50% OF A PIECE OF REINFORCING STEEL IS EXPOSED, THE CONCRETE SHALL BE REMOVED TO A MINIMUM OF 1" AROUND THE REINFORCING STEEL AS SHOWN ABOVE.
4. IF REINFORCING STEEL IS FOUND TO BE DETERIORATED, SUPPLEMENTARY REINFORCING STEEL IS TO BE PROVIDED.
5. SUPPLEMENTARY REINFORCEMENT TO BE LAPPED WITH EXISTING REINFORCEMENT AS PER NOTES ON SHEET S1.
6. CLEAN EXCAVATED CONCRETE SURFACE OF ALL DUST AND UNBONDED PARTICLES PRIOR TO REPAIR.
7. CONCRETE SURFACE SHALL BE DAMPENED PRIOR TO PATCHING IN ACCORDANCE WITH SPECIAL PROVISIONS.
8. IF LIMITS OF REPAIR IS LESS THAN 2" DEEP, TYPE A REPAIR IS TO BE PERFORMED AS SHOWN ABOVE.
9. IF LIMITS OF REPAIR IS MORE THAN 2" DEEP, TYPE B REPAIR IS TO BE PERFORMED AS SHOWN ABOVE.
10. ALL PATCHES TO BE FINISHED FLUSH WITH SURROUNDING CONCRETE.



#### NOTES:

1. CONTRACTOR TO PERFORM FIELD SURVEY TO DETERMINE LIMITS OF CRACKS AND REQUIRED REPAIRS (SEE NOTES ON SHEET S1).
2. AFTER APPROVAL OF LIMITS IS RECEIVED FROM THE ENGINEER, CONCRETE CRACKS SHALL BE REPAIRED BY EPOXY INJECTION.
3. CRACKS SHALL BE CLEANED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS PRIOR TO INSTALLATION OF INJECTION PORTS.
4. REFER TO SPECIAL PROVISIONS FOR MATERIAL AND ADDITIONAL PROCEDURE REQUIREMENTS.

#### EPOXY INJECTION CRACK REPAIR DETAIL

NOT TO SCALE



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Consultants:

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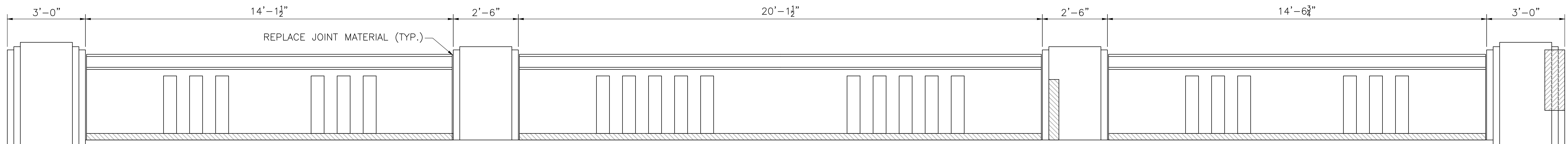
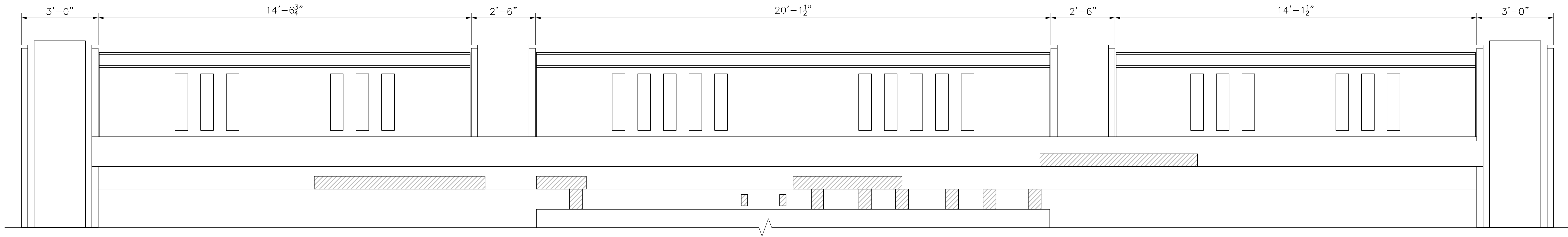
REPAIR DETAILS

Sheet Number:

S-2



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LEGEND



APPROXIMATE AREAS  
OF SPALL REPAIRS

Project:  
TOWN OF WINCHESTER  
WINCHESTER, MA



BRIDGE REPAIRS

WASHINGTON ST & CROSS ST  
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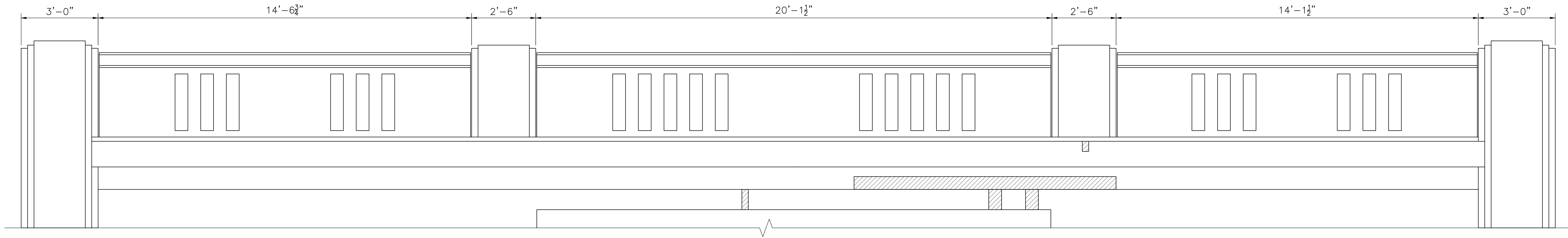
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WEST ELEVATION &  
BARRIER REPAIRS

Sheet Number:

S-4

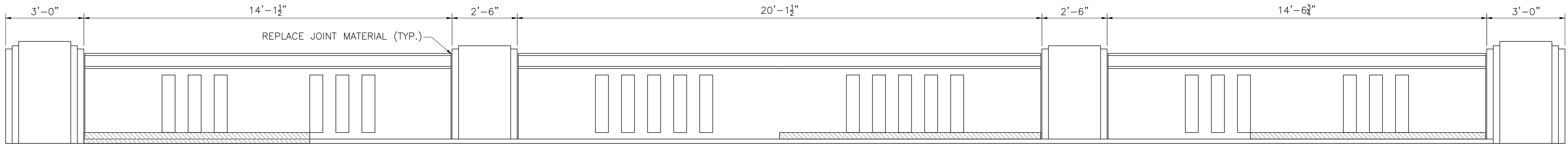


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EAST ELEVATION EXTERIOR FACE

SCALE:  $\frac{1}{2}$ " = 1'-0"



EAST BARRIER INTERIOR FACE

SCALE:  $\frac{1}{2}$ " = 1'-0"

LEGEND



APPROXIMATE AREAS  
OF SPALL REPAIRS

Project:  
TOWN OF WINCHESTER  
WINCHESTER, MA



BRIDGE REPAIRS

WASHINGTON ST & CROSS ST  
OVER ABERJONA RIVER

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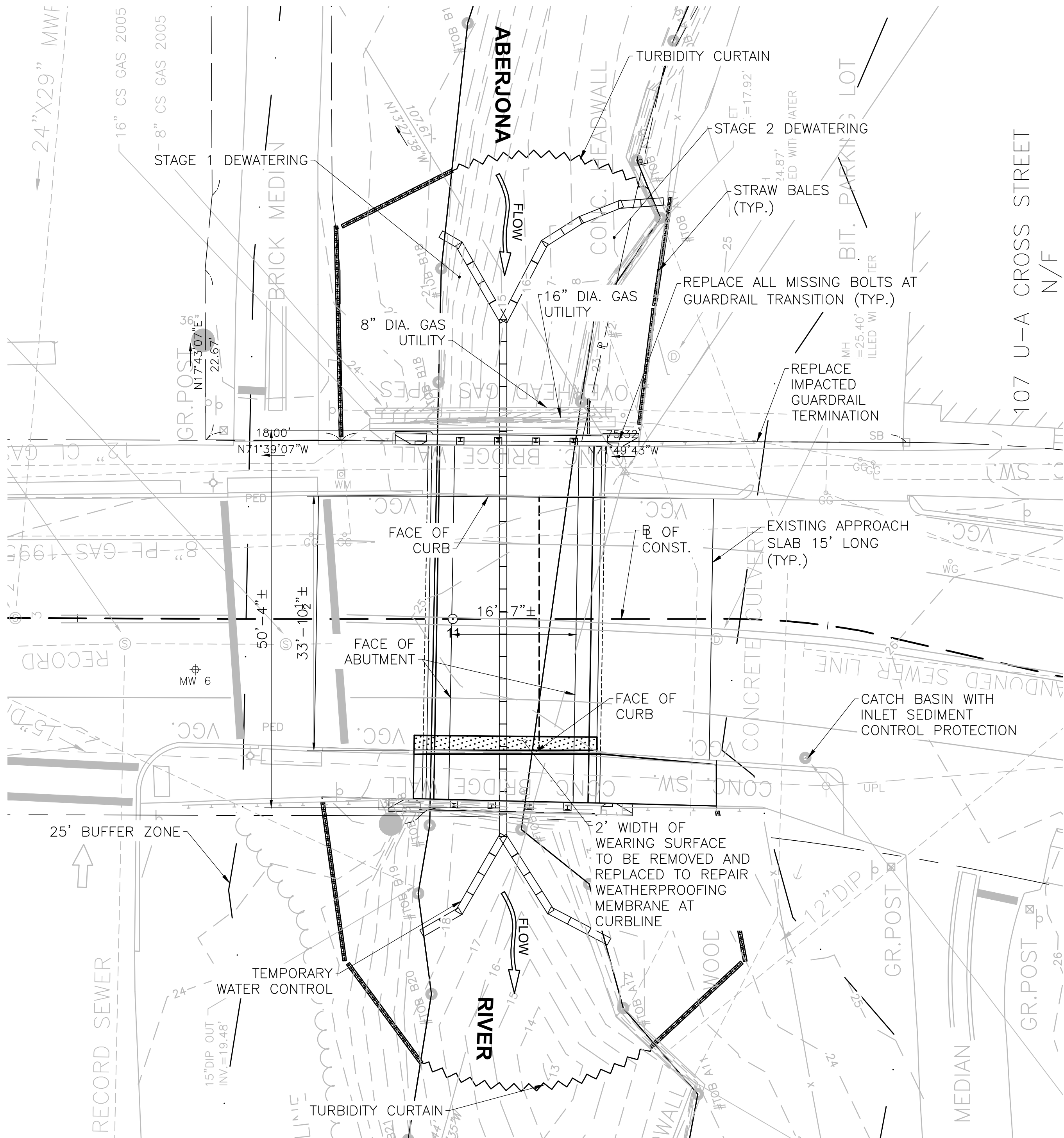
WASHINGTON ST  
EAST ELEVATION &  
BARRIER REPAIRS

Sheet Number:

S-5

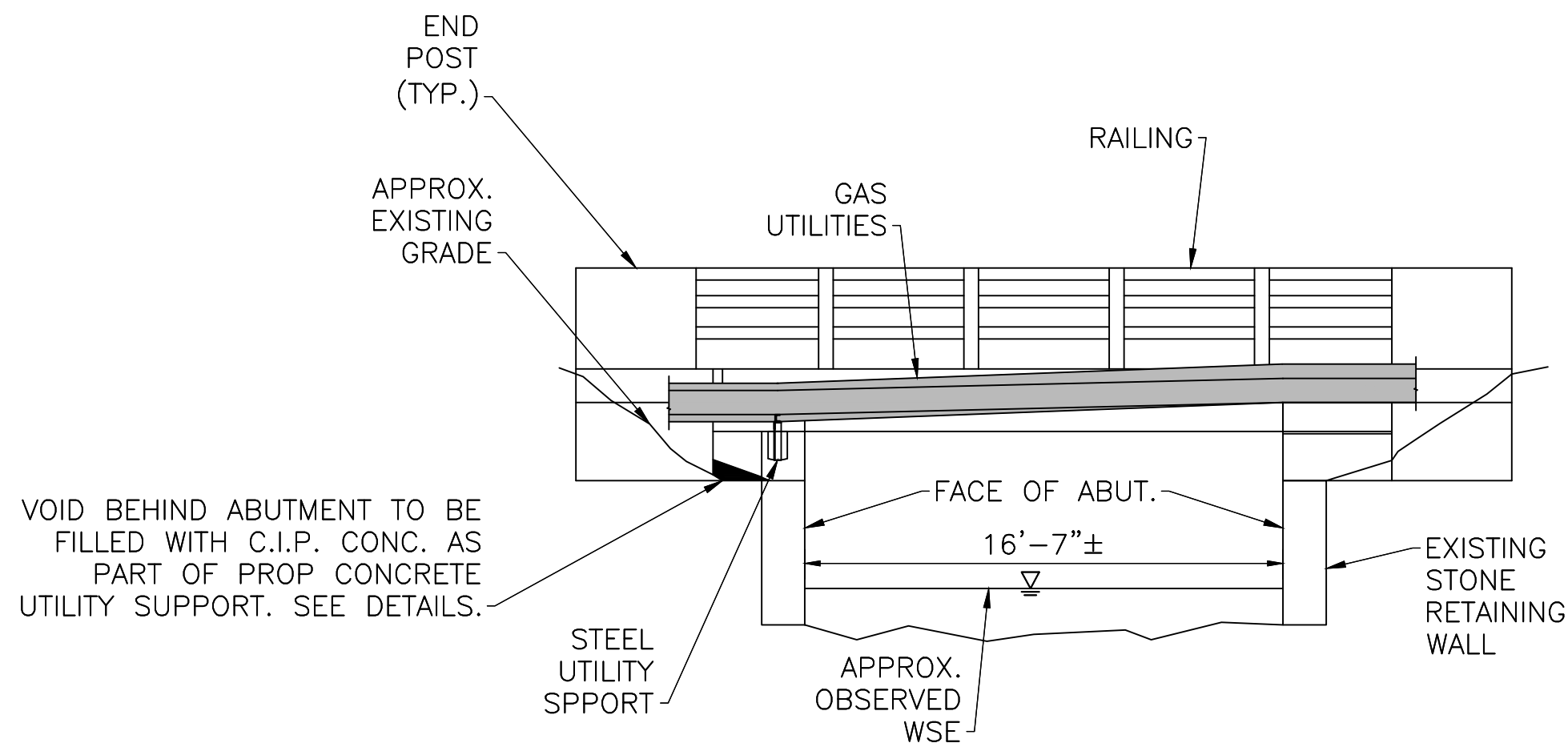
Rev. 2.0 Date: July 2020





PLAN

SCALE: 1" = 10'



EXISTING NORTH ELEVATION

SCALE: 3/16" = 1'-0"

## GENERAL NOTES

### EXISTING CONDITIONS:

DIMENSIONS SHOWN AND DETAILS DEPICTED ARE NOT GUARANTEED. THE CONTRACTOR SHALL DETERMINE AND ESTABLISH ALL DIMENSIONS AND DETAILS NECESSARY FOR COMPLETION OF ALL WORK BY FIELD MEASUREMENT AND SURVEY. THE CONTRACTOR SHALL BE RESPONSIBLE AND NOT ORDER ANY MATERIAL OR COMMENCE ANY FABRICATION UNTIL THE REQUIRED MEASUREMENTS ON THE EXTENT OF THE PROPOSED WORK HAS BEEN APPROVED BY THE ENGINEER.

### EXISTING PLANS:

IF REQUIRED, ORIGINAL PLANS FOR THE EXISTING BRIDGE, DATED 1995 MAY BE SEEN AT THE OFFICE OF THE BRIDGE ENGINEER, MASSDOT - HIGHWAY DIVISION. 10 PARK PLAZA, BOSTON, MASSACHUSETTS.

### CONCRETE:

ALL CEMENT CONCRETE SHALL BE AS SPECIFIED BELOW:  
4000 PSI, 3/4" 585 HP CEMENT CONCRETE

### FIELD SURVEY:

PRIOR TO COMMENCEMENT OF ANY REPAIR WORK, THE CONTRACTOR SHALL PERFORM FIELD SURVEY TO DETERMINE AND MARK OUT THE EXTENTS OF ALL DETERIORATION AND REPAIRS TO BE PERFORMED. FIELD SURVEY SHALL INCLUDE SOUNDING FOR DELAMINATION AND KNOCKING OFF LOOSE CONCRETE VIA HAMMER TAPPING. THE CONTRACTOR MUST THEN RECIEVE APPROVAL OF ALL DETERIORATION AND REPAIR EXTENTS BY THE ENGINEER PRIOR TO THE COMMENCEMENT OF REPAIR WORK. THE ENGINEER SHALL HAVE FINAL SAY ON ALL LIMITS OF DETERIORATION AND REPAIRS.

### TEMPORARY WATER CONTROL:

COFFERDAM FOR STAGE 1 DEWATERING MUST BE REMOVED BEFORE COFFERDAM FOR STAGE 2 DEWATERING IS INSTALLED.

Project:  
TOWN OF WINCHESTER  
WINCHESTER, MA



BRIDGE REPAIRS  
WASHINGTON ST & CROSS ST  
OVER ABERJONA RIVER

Weston & Sampson

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Consultants:

Revisions:

No.	Date	Description

Seal:



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Drawn By: YS

Reviewed By: XXX

Approved By: XXX

W&S Project No.: ENG21 - 1288

W&S File No.:

Drawing Title:

CROSS ST  
PLAN AND  
ELEVATION

Sheet Number:

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- ABUTMENT REPAIR NOTES:
1. REPLACE MISSING CHINK STONES.
  2. REPOINT LOOSE OR CRACKED MORTAR JOINTS.
  3. INSTALL C.I.P. CONCRETE IN LOCATIONS WITH VOIDS EXCEEDING 6" DEEP.

PROPOSED CONCRETE UTILITY SUPPORT

SCALE:  $\frac{1}{4}" = 1'-0"$

PROPOSED NORTH ELEVATION

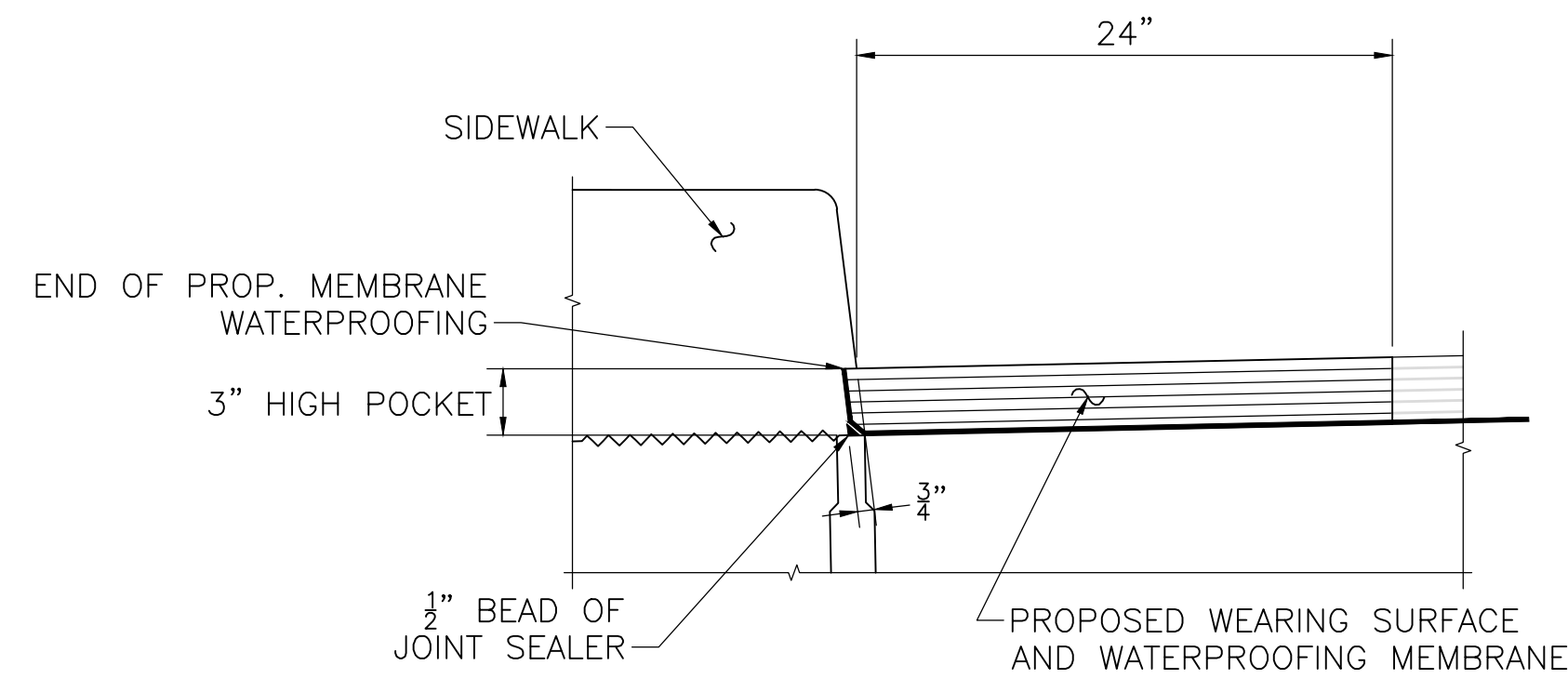
SCALE:  $\frac{1}{4}" = 1'-0"$

EXISTING EAST ABUTMENT ELEVATION

SCALE:  $\frac{1}{4}" = 1'-0"$

EXISTING WEST ABUTMENT ELEVATION

SCALE:  $\frac{1}{4}" = 1'-0"$



SIDEWALK DETAIL

SCALE:  $\frac{1}{4}" = 1'-0"$

Project:  
TOWN OF WINCHESTER  
WINCHESTER, MA



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Drawing Title:

ABUTMENT  
ELEVATIONS AND  
REPAIR DETAILS

Sheet Number:

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Rev. 2.0 Date: July 2020

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